

| Var. Question No. | Variable Name | Variable Label                | Code  | Option                                                  | Location/Format |
|-------------------|---------------|-------------------------------|-------|---------------------------------------------------------|-----------------|
| 1                 | BOOKLET       | IDBOOK BOOKLET ID             | 0     | NO BOOKLET WAS ASSIGNED                                 | 1- 2/C 2.0      |
|                   |               |                               | 1     | BOOKLET 1                                               |                 |
|                   |               |                               | 2     | BOOKLET 2                                               |                 |
|                   |               |                               | 3     | BOOKLET 3                                               |                 |
|                   |               |                               | 4     | BOOKLET 4                                               |                 |
|                   |               |                               | 5     | BOOKLET 5                                               |                 |
|                   |               |                               | 6     | BOOKLET 6                                               |                 |
|                   |               |                               | 7     | BOOKLET 7                                               |                 |
|                   |               |                               | 8     | BOOKLET 8                                               |                 |
|                   |               |                               | 99    | omitted                                                 |                 |
|                   |               |                               | 98    | not admin.                                              |                 |
|                   |               |                               |       | VLD: IDBOOK\$'0#1#2#3#4#5#6#7#8#99#98'                  |                 |
|                   |               |                               |       | Flags: SCR: 1 / CAR:F / CAT:ID / DEF:                   |                 |
|                   |               |                               |       | COMMENT:                                                |                 |
| 2                 | SCORER A      | IDSCORA ACHIEVEMENT SCORER ID | VALUE | IDSCORA ID                                              | 3- 5/N 3.0      |
|                   |               |                               | 999   | omitted                                                 |                 |
|                   |               |                               | 998   | not admin.                                              |                 |
|                   |               |                               |       | VLD: .T.                                                |                 |
|                   |               |                               |       | Flags: SCR: 2 / CAR:T / CAT:ID / DEF:                   |                 |
|                   |               |                               |       | COMMENT:                                                |                 |
| 3                 | PUNCHER       | IDPUNCH PUNCHER ID            | VALUE | IDPUNCH ID                                              | 6- 8/N 3.0      |
|                   |               |                               | 999   | omitted                                                 |                 |
|                   |               |                               | 998   | not admin.                                              |                 |
|                   |               |                               |       | VLD: .T.                                                |                 |
|                   |               |                               |       | Flags: SCR: 3 / CAR:T / CAT:ID / DEF:                   |                 |
|                   |               |                               |       | COMMENT:                                                |                 |
| 4                 | COUNTRY       | IDCNTRY COUNTRY ID            | VALUE | IDCNTRY ID                                              | 9- 13/N 5.0     |
|                   |               |                               | 99999 | omitted                                                 |                 |
|                   |               |                               | 99998 | not admin.                                              |                 |
|                   |               |                               |       | VLD: .T.                                                |                 |
|                   |               |                               |       | Flags: SCR: 4 / CAR:T / CAT:ID / DEF:                   |                 |
|                   |               |                               |       | COMMENT:                                                |                 |
| 5                 | SCHOOL        | IDSCHOOL SCHOOL ID            | VALUE | IDSCHOOL ID                                             | 14- 17/N 4.0    |
|                   |               |                               | 9999  | omitted                                                 |                 |
|                   |               |                               | 9998  | not admin.                                              |                 |
|                   |               |                               |       | VLD: (IDSCHOOL>=1.AND.IDSCHOOL<=9996).OR.IDSCHOOL=9999. |                 |
|                   |               |                               |       | OR.IDSCHOOL=9998                                        |                 |
|                   |               |                               |       | Flags: SCR: 5 / CAR:T / CAT:ID / DEF:                   |                 |
|                   |               |                               |       | COMMENT:                                                |                 |



| Var. Question No. | Variable Name | Variable Label                       | Code | Option                                 | Location/Format |
|-------------------|---------------|--------------------------------------|------|----------------------------------------|-----------------|
| 10 M01_03         | MA13003       | PREDICTIONS OF 2 MODELS COMPARED (E) | 1    | A                                      | 34 /C 1.0       |
|                   |               |                                      | 2    | B                                      |                 |
|                   |               |                                      | 3    | C                                      |                 |
|                   |               |                                      | 4    | D                                      |                 |
|                   |               |                                      | 5    | E*                                     |                 |
|                   |               |                                      | 9    | omitted                                |                 |
|                   |               |                                      | 8    | not admin.                             |                 |
|                   |               |                                      | 6    | not reached                            |                 |
|                   |               |                                      |      | VLD: MA13003\$'1#2#3#4#5#9#8#6'        |                 |
|                   |               |                                      |      | Flags: SCR: 10 / CAR:F / CAT:M5        | / DEF: 7        |
|                   |               |                                      |      | COMMENT: Algebra/ Reasoning (T) (I_03) |                 |
| 11 M01_04         | MA13004       | SOLVE THE LIMIT OF FUNCTION (B)      | 1    | A                                      | 35 /C 1.0       |
|                   |               |                                      | 2    | B*                                     |                 |
|                   |               |                                      | 3    | C                                      |                 |
|                   |               |                                      | 4    | D                                      |                 |
|                   |               |                                      | 5    | E                                      |                 |
|                   |               |                                      | 9    | omitted                                |                 |
|                   |               |                                      | 8    | not admin.                             |                 |
|                   |               |                                      | 6    | not reached                            |                 |
|                   |               |                                      |      | VLD: MA13004\$'1#2#3#4#5#9#8#6'        |                 |
|                   |               |                                      |      | Flags: SCR: 11 / CAR:F / CAT:M2        | / DEF: 7        |
|                   |               |                                      |      | COMMENT: Calculus/ Knowing (T) (I_04)  |                 |
| 12 M01_05         | MA13005       | NEW MEAN AND STANDARD DEVIATION (A)  | 1    | A*                                     | 36 /C 1.0       |
|                   |               |                                      | 2    | B                                      |                 |
|                   |               |                                      | 3    | C                                      |                 |
|                   |               |                                      | 4    | D                                      |                 |
|                   |               |                                      | 5    | E                                      |                 |
|                   |               |                                      | 9    | omitted                                |                 |
|                   |               |                                      | 8    | not admin.                             |                 |
|                   |               |                                      | 6    | not reached                            |                 |
|                   |               |                                      |      | VLD: MA13005\$'1#2#3#4#5#9#8#6'        |                 |
|                   |               |                                      |      | Flags: SCR: 12 / CAR:F / CAT:M1        | / DEF: 7        |
|                   |               |                                      |      | COMMENT: (T) (I_05)                    |                 |
| 13 M01_06         | MA13006       | USING CHAIN RULE (D)                 | 1    | A                                      | 37 /C 1.0       |
|                   |               |                                      | 2    | B                                      |                 |
|                   |               |                                      | 3    | C                                      |                 |
|                   |               |                                      | 4    | D*                                     |                 |
|                   |               |                                      | 5    | E                                      |                 |
|                   |               |                                      | 9    | omitted                                |                 |
|                   |               |                                      | 8    | not admin.                             |                 |
|                   |               |                                      | 6    | not reached                            |                 |
|                   |               |                                      |      | VLD: MA13006\$'1#2#3#4#5#9#8#6'        |                 |
|                   |               |                                      |      | Flags: SCR: 13 / CAR:F / CAT:M4        | / DEF: 7        |
|                   |               |                                      |      | COMMENT: Calculus/ Knowing (T) (I_06)  |                 |

| Var. Question No. | Variable Name | Variable Label                         | Code | Option                                  | Location/Format |
|-------------------|---------------|----------------------------------------|------|-----------------------------------------|-----------------|
| 14 M01_07         | MA13007       | SLOPE SUMS OF EQUILATERAL TRIANGLE (A) | 1    | A*                                      | 38 /C 1.0       |
|                   |               |                                        | 2    | B                                       |                 |
|                   |               |                                        | 3    | C                                       |                 |
|                   |               |                                        | 4    | D                                       |                 |
|                   |               |                                        | 5    | E                                       |                 |
|                   |               |                                        | 9    | omitted                                 |                 |
|                   |               |                                        | 8    | not admin.                              |                 |
|                   |               |                                        | 6    | not reached                             |                 |
|                   |               |                                        |      | VLD: MA13007\$'1#2#3#4#5#9#8#6'         |                 |
|                   |               |                                        |      | Flags: SCR: 14 / CAR:F / CAT:M1         | / DEF: 7        |
|                   |               |                                        |      | COMMENT: Geometry/ Applying (T) (I_07)  |                 |
| 15 M01_08         | MA13008       | LENGTH OF PT IS EQUAL TO (D)           | 1    | A                                       | 39 /C 1.0       |
|                   |               |                                        | 2    | B                                       |                 |
|                   |               |                                        | 3    | C                                       |                 |
|                   |               |                                        | 4    | D*                                      |                 |
|                   |               |                                        | 9    | omitted                                 |                 |
|                   |               |                                        | 8    | not admin.                              |                 |
|                   |               |                                        | 6    | not reached                             |                 |
|                   |               |                                        |      | VLD: MA13008\$'1#2#3#4#9#8#6'           |                 |
|                   |               |                                        |      | Flags: SCR: 15 / CAR:F / CAT:M4         | / DEF: 7        |
|                   |               |                                        |      | COMMENT: Geometry/ Reasoning (T) (I_08) |                 |
| 16 M01_09         | MA13009       | INTEGER COORDINATES OF FUNCTION (C)    | 1    | A                                       | 40 /C 1.0       |
|                   |               |                                        | 2    | B                                       |                 |
|                   |               |                                        | 3    | C*                                      |                 |
|                   |               |                                        | 4    | D                                       |                 |
|                   |               |                                        | 9    | omitted                                 |                 |
|                   |               |                                        | 8    | not admin.                              |                 |
|                   |               |                                        | 6    | not reached                             |                 |
|                   |               |                                        |      | VLD: MA13009\$'1#2#3#4#9#8#6'           |                 |
|                   |               |                                        |      | Flags: SCR: 16 / CAR:F / CAT:M3         | / DEF: 7        |
|                   |               |                                        |      | COMMENT: Algebra/ Applying (T) (I_09)   |                 |
| 17 M01_10         | MA13010       | NUMBER OF COUNTRY REPRESENTATIVES (C)  | 1    | A                                       | 41 /C 1.0       |
|                   |               |                                        | 2    | B                                       |                 |
|                   |               |                                        | 3    | C*                                      |                 |
|                   |               |                                        | 4    | D                                       |                 |
|                   |               |                                        | 9    | omitted                                 |                 |
|                   |               |                                        | 8    | not admin.                              |                 |
|                   |               |                                        | 6    | not reached                             |                 |
|                   |               |                                        |      | VLD: MA13010\$'1#2#3#4#9#8#6'           |                 |
|                   |               |                                        |      | Flags: SCR: 17 / CAR:F / CAT:M3         | / DEF: 7        |
|                   |               |                                        |      | COMMENT: (T) (I_10)                     |                 |

| Var. Question No. | Variable Name | Variable Label                           | Code | Option                                | Location/Format |
|-------------------|---------------|------------------------------------------|------|---------------------------------------|-----------------|
| 18 M02_01         | MA13011       | FIND AN EQUIVALENT FRACTION (A)          | 1    | A*                                    | 42 /C 1.0       |
|                   |               |                                          | 2    | B                                     |                 |
|                   |               |                                          | 3    | C                                     |                 |
|                   |               |                                          | 4    | D                                     |                 |
|                   |               |                                          | 5    | E                                     |                 |
|                   |               |                                          | 9    | omitted                               |                 |
|                   |               |                                          | 8    | not admin.                            |                 |
|                   |               |                                          | 6    | not reached                           |                 |
|                   |               |                                          |      | VLD: MA13011\$'1#2#3#4#5#9#8#6'       |                 |
|                   |               |                                          |      | Flags: SCR: 18 / CAR:F / CAT:M1       | / DEF: 7        |
|                   |               |                                          |      | COMMENT: Algebra/ Knowing (T) (J_01)  |                 |
| 19 M02_02         | MA13012       | CUBING A TRIGONOMETRIC FUNCTION (C)      | 1    | A                                     | 43 /C 1.0       |
|                   |               |                                          | 2    | B                                     |                 |
|                   |               |                                          | 3    | C*                                    |                 |
|                   |               |                                          | 4    | D                                     |                 |
|                   |               |                                          | 5    | E                                     |                 |
|                   |               |                                          | 9    | omitted                               |                 |
|                   |               |                                          | 8    | not admin.                            |                 |
|                   |               |                                          | 6    | not reached                           |                 |
|                   |               |                                          |      | VLD: MA13012\$'1#2#3#4#5#9#8#6'       |                 |
|                   |               |                                          |      | Flags: SCR: 19 / CAR:F / CAT:M3       | / DEF: 7        |
|                   |               |                                          |      | COMMENT: Algebra/ Knowing (T) (J_02)  |                 |
| 20 M02_03         | MA13013       | VALUE OF X TO MAKE FUNCTION NEGATIVE (E) | 1    | A                                     | 44 /C 1.0       |
|                   |               |                                          | 2    | B                                     |                 |
|                   |               |                                          | 3    | C                                     |                 |
|                   |               |                                          | 4    | D                                     |                 |
|                   |               |                                          | 5    | E*                                    |                 |
|                   |               |                                          | 9    | omitted                               |                 |
|                   |               |                                          | 8    | not admin.                            |                 |
|                   |               |                                          | 6    | not reached                           |                 |
|                   |               |                                          |      | VLD: MA13013\$'1#2#3#4#5#9#8#6'       |                 |
|                   |               |                                          |      | Flags: SCR: 20 / CAR:F / CAT:M5       | / DEF: 7        |
|                   |               |                                          |      | COMMENT: Algebra/ Applying (T) (J_03) |                 |
| 21 M02_04         | MA13014       | TRANSLATED TRIGONOMETRIC FUNCTION (C)    | 1    | A                                     | 45 /C 1.0       |
|                   |               |                                          | 2    | B                                     |                 |
|                   |               |                                          | 3    | C*                                    |                 |
|                   |               |                                          | 4    | D                                     |                 |
|                   |               |                                          | 9    | omitted                               |                 |
|                   |               |                                          | 8    | not admin.                            |                 |
|                   |               |                                          | 6    | not reached                           |                 |
|                   |               |                                          |      | VLD: MA13014\$'1#2#3#4#9#8#6'         |                 |
|                   |               |                                          |      | Flags: SCR: 21 / CAR:F / CAT:M3       | / DEF: 7        |
|                   |               |                                          |      | COMMENT: Algebra/ Knowing (T) (J_04)  |                 |

| Var. Question No. | Variable Name | Variable Label                          | Code | Option                                 | Location/Format |
|-------------------|---------------|-----------------------------------------|------|----------------------------------------|-----------------|
| 22 M02_05         | MA13015       | DERIVATIVE OF EXPONENTIAL FUNCTION (C)  | 1    | A                                      | 46 /C 1.0       |
|                   |               |                                         | 2    | B                                      |                 |
|                   |               |                                         | 3    | C*                                     |                 |
|                   |               |                                         | 4    | D                                      |                 |
|                   |               |                                         | 5    | E                                      |                 |
|                   |               |                                         | 9    | omitted                                |                 |
|                   |               |                                         | 8    | not admin.                             |                 |
|                   |               |                                         | 6    | not reached                            |                 |
|                   |               |                                         |      | VLD: MA13015\$'1#2#3#4#5#9#8#6'        |                 |
|                   |               |                                         |      | Flags: SCR: 22 / CAR:F / CAT:M3        | / DEF: 7        |
|                   |               |                                         |      | COMMENT: Calculus/ Knowing (T) (J_05)  |                 |
| 23 M02_06         | MA13016       | CYLINDER RADIUS WITH MAXIMUM VOLUME (D) | 1    | A                                      | 47 /C 1.0       |
|                   |               |                                         | 2    | B                                      |                 |
|                   |               |                                         | 3    | C                                      |                 |
|                   |               |                                         | 4    | D*                                     |                 |
|                   |               |                                         | 5    | E                                      |                 |
|                   |               |                                         | 9    | omitted                                |                 |
|                   |               |                                         | 8    | not admin.                             |                 |
|                   |               |                                         | 6    | not reached                            |                 |
|                   |               |                                         |      | VLD: MA13016\$'1#2#3#4#5#9#8#6'        |                 |
|                   |               |                                         |      | Flags: SCR: 23 / CAR:F / CAT:M4        | / DEF: 7        |
|                   |               |                                         |      | COMMENT: Calculus/ Applying (T) (J_06) |                 |
| 24 M02_07         | MA13017       | EQUATION OF PERPENDICULAR LINE (E)      | 1    | A                                      | 48 /C 1.0       |
|                   |               |                                         | 2    | B                                      |                 |
|                   |               |                                         | 3    | C                                      |                 |
|                   |               |                                         | 4    | D                                      |                 |
|                   |               |                                         | 5    | E*                                     |                 |
|                   |               |                                         | 9    | omitted                                |                 |
|                   |               |                                         | 8    | not admin.                             |                 |
|                   |               |                                         | 6    | not reached                            |                 |
|                   |               |                                         |      | VLD: MA13017\$'1#2#3#4#5#9#8#6'        |                 |
|                   |               |                                         |      | Flags: SCR: 24 / CAR:F / CAT:M5        | / DEF: 7        |
|                   |               |                                         |      | COMMENT: Geometry/ Applying (T) (J_07) |                 |
| 25 M02_08         | MA13018       | DIFFERENCE OF TWO VECTORS (B)           | 1    | A                                      | 49 /C 1.0       |
|                   |               |                                         | 2    | B*                                     |                 |
|                   |               |                                         | 3    | C                                      |                 |
|                   |               |                                         | 4    | D                                      |                 |
|                   |               |                                         | 5    | E                                      |                 |
|                   |               |                                         | 9    | omitted                                |                 |
|                   |               |                                         | 8    | not admin.                             |                 |
|                   |               |                                         | 6    | not reached                            |                 |
|                   |               |                                         |      | VLD: MA13018\$'1#2#3#4#5#9#8#6'        |                 |
|                   |               |                                         |      | Flags: SCR: 25 / CAR:F / CAT:M2        | / DEF: 7        |
|                   |               |                                         |      | COMMENT: Geometry/ Knowing (T) (J_08)  |                 |

| Var. Question No. | Variable Name | Variable Label                          | Code                                 | Option                                                                                                                                                                                  | Location/Format |
|-------------------|---------------|-----------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 26 M02_09         | MA13019       | EQUATION REPRESENTING SET OF POINTS (B) | 1<br>2<br>3<br>4<br>9<br>8<br>6      | A<br>B*<br>C<br>D<br>omitted<br>not admin.<br>not reached<br>VLD: MA13019\$'1#2#3#4#9#8#6'<br>Flags: SCR: 26 / CAR:F / CAT:M2 / DEF: 7<br>COMMENT: Geometry/ Knowing (T) (J_09)         | 50 /C 1.0       |
| 27 M02_10         | MA13020       | VALUE OF VECTOR IN TRIANGLE (C)         | 1<br>2<br>3<br>4<br>5<br>9<br>8<br>6 | A<br>B<br>C*<br>D<br>E<br>omitted<br>not admin.<br>not reached<br>VLD: MA13020\$'1#2#3#4#5#9#8#6'<br>Flags: SCR: 27 / CAR:F / CAT:M3 / DEF: 7<br>COMMENT: Geometry/ Applying (T) (J_10) | 51 /C 1.0       |
| 28 M03_01         | MA13021       | SHAPE CREATED BY ROTATING LINE (A)      | 1<br>2<br>3<br>4<br>5<br>9<br>8<br>6 | A*<br>B<br>C<br>D<br>E<br>omitted<br>not admin.<br>not reached<br>VLD: MA13021\$'1#2#3#4#5#9#8#6'<br>Flags: SCR: 28 / CAR:F / CAT:M1 / DEF: 7<br>COMMENT: Geometry/ Knowing (T) (J_11)  | 52 /C 1.0       |
| 29 M03_02         | MA13022       | GRAPH OF AVERAGE WEEKLY RAINFALL (B)    | 1<br>2<br>3<br>4<br>5<br>9<br>8<br>6 | A<br>B*<br>C<br>D<br>E<br>omitted<br>not admin.<br>not reached<br>VLD: MA13022\$'1#2#3#4#5#9#8#6'<br>Flags: SCR: 29 / CAR:F / CAT:M2 / DEF: 7<br>COMMENT: (T) (J_12)                    | 53 /C 1.0       |

| Var. Question No. | Variable Name | Variable Label                        | Code | Option                                    | Location/Format |
|-------------------|---------------|---------------------------------------|------|-------------------------------------------|-----------------|
| 30 M03_03         | MA13023       | OVERALL AVERAGE TEST SCORE (D)        | 1    | A                                         | 54 /C 1.0       |
|                   |               |                                       | 2    | B                                         |                 |
|                   |               |                                       | 3    | C                                         |                 |
|                   |               |                                       | 4    | D*                                        |                 |
|                   |               |                                       | 5    | E                                         |                 |
|                   |               |                                       | 9    | omitted                                   |                 |
|                   |               |                                       | 8    | not admin.                                |                 |
|                   |               |                                       | 6    | not reached                               |                 |
|                   |               |                                       |      | VLD: MA13023\$'1#2#3#4#5#9#8#6'           |                 |
|                   |               |                                       |      | Flags: SCR: 30 / CAR:F / CAT:M4 / DEF: 7  |                 |
|                   |               |                                       |      | COMMENT: (T) (J_13)                       |                 |
| 31 M03_04         | MA13024       | INTEGRAL OF FUNCTION (B)              | 1    | A                                         | 55 /C 1.0       |
|                   |               |                                       | 2    | B*                                        |                 |
|                   |               |                                       | 3    | C                                         |                 |
|                   |               |                                       | 4    | D                                         |                 |
|                   |               |                                       | 5    | E                                         |                 |
|                   |               |                                       | 9    | omitted                                   |                 |
|                   |               |                                       | 8    | not admin.                                |                 |
|                   |               |                                       | 6    | not reached                               |                 |
|                   |               |                                       |      | VLD: MA13024\$'1#2#3#4#5#9#8#6'           |                 |
|                   |               |                                       |      | Flags: SCR: 31 / CAR:F / CAT:M2 / DEF: 7  |                 |
|                   |               |                                       |      | COMMENT: Calculus/ Knowing (T) (J_14)     |                 |
| 32 M03_05A        | MA13025A      | FUNCTION/WHERE NOT CONTINUOUS (1)     | 10   | CORRECT RESPONSE                          | 56- 57/C 2.0    |
|                   |               |                                       | 79   | INCORRECT RESPONSE                        |                 |
|                   |               |                                       | 99   | omitted                                   |                 |
|                   |               |                                       | 98   | not admin.                                |                 |
|                   |               |                                       | 96   | not reached                               |                 |
|                   |               |                                       |      | VLD: MA13025A\$'10#79#99#98#96'           |                 |
|                   |               |                                       |      | Flags: SCR: 32 / CAR:F / CAT:SA / DEF: 97 |                 |
|                   |               |                                       |      | COMMENT: Calculus/ Knowing (T) (J_15)     |                 |
| 33 M03_05B        | MA13025B      | FUNCTION/WHERE NOT DIFFERENTIABLE (1) | 10   | CORRECT RESPONSE                          | 58- 59/C 2.0    |
|                   |               |                                       | 70   | INCORRECT RESPONSE                        |                 |
|                   |               |                                       | 71   | INCORRECT RESPONSE                        |                 |
|                   |               |                                       | 72   | INCORRECT RESPONSE                        |                 |
|                   |               |                                       | 79   | INCORRECT RESPONSE                        |                 |
|                   |               |                                       | 99   | omitted                                   |                 |
|                   |               |                                       | 98   | not admin.                                |                 |
|                   |               |                                       | 96   | not reached                               |                 |
|                   |               |                                       |      | VLD: MA13025B\$'10#70#71#72#79#99#98#96'  |                 |
|                   |               |                                       |      | Flags: SCR: 33 / CAR:F / CAT:SA / DEF: 97 |                 |
|                   |               |                                       |      | COMMENT: Calculus/ Knowing (T) (J_15)     |                 |

| Var. Question No. | Variable Name | Variable Label                        | Code | Option                                     | Location/Format |
|-------------------|---------------|---------------------------------------|------|--------------------------------------------|-----------------|
| 34 M03_06A        | MA13026A      | TRIANGLE ABC/REFLECTION (1)           | 10   | CORRECT RESPONSE                           | 60- 61/C 2.0    |
|                   |               |                                       | 70   | INCORRECT RESPONSE                         |                 |
|                   |               |                                       | 71   | INCORRECT RESPONSE                         |                 |
|                   |               |                                       | 79   | INCORRECT RESPONSE                         |                 |
|                   |               |                                       | 99   | omitted                                    |                 |
|                   |               |                                       | 98   | not admin.                                 |                 |
|                   |               |                                       | 96   | not reached                                |                 |
|                   |               |                                       |      | VLD: MA13026A\$'10#70#71#79#99#98#96'      |                 |
|                   |               |                                       |      | Flags: SCR: 34 / CAR:F / CAT:SA / DEF: 97  |                 |
|                   |               |                                       |      | COMMENT: Geometry/ Applying (T) (J_16)     |                 |
| 35 M03_06B        | MA13026B      | TRIANGLE ABC/ROTATION (1)             | 10   | CORRECT RESPONSE                           | 62- 63/C 2.0    |
|                   |               |                                       | 70   | INCORRECT RESPONSE                         |                 |
|                   |               |                                       | 71   | INCORRECT RESPONSE                         |                 |
|                   |               |                                       | 72   | INCORRECT RESPONSE                         |                 |
|                   |               |                                       | 79   | INCORRECT RESPONSE                         |                 |
|                   |               |                                       | 99   | omitted                                    |                 |
|                   |               |                                       | 98   | not admin.                                 |                 |
|                   |               |                                       | 96   | not reached                                |                 |
|                   |               |                                       |      | VLD: MA13026B\$'10#70#71#72#79#99#98#96'   |                 |
|                   |               |                                       |      | Flags: SCR: 35 / CAR:F / CAT:SA / DEF: 97  |                 |
|                   |               |                                       |      | COMMENT: Geometry/ Applying (T) (J_16)     |                 |
| 36 M03_07         | MA13027       | LIMIT OF THE PERIMETER OF POLYGON (2) | 20   | CORR.RESPONSE                              | 64- 65/C 2.0    |
|                   |               |                                       | 10   | PART.CORR.RESPONSE                         |                 |
|                   |               |                                       | 11   | PART. CORR.RESPONSE                        |                 |
|                   |               |                                       | 70   | INCORR.RESPONSE                            |                 |
|                   |               |                                       | 71   | INCORR.RESPONSE                            |                 |
|                   |               |                                       | 79   | INCORR.RESPONSE                            |                 |
|                   |               |                                       | 99   | omitted                                    |                 |
|                   |               |                                       | 98   | not admin.                                 |                 |
|                   |               |                                       | 96   | not reached                                |                 |
|                   |               |                                       |      | VLD: MA13027\$'20#10#11#70#71#79#99#98#96' |                 |
|                   |               |                                       |      | Flags: SCR: 36 / CAR:F / CAT:SA / DEF: 97  |                 |
|                   |               |                                       |      | COMMENT: Algebra/ Reasoning (T) (J_17)     |                 |
| 37 M03_08         | MA13028       | STEPS FOR MATHEMATICAL INDUCTION (2)  | 10   | CORRECT RESPONSE                           | 66- 67/C 2.0    |
|                   |               |                                       | 70   | INCORRECT RESPONSE                         |                 |
|                   |               |                                       | 71   | INCORRECT RESPONSE                         |                 |
|                   |               |                                       | 72   | INCORRECT RESPONSE                         |                 |
|                   |               |                                       | 79   | INCORRECT RESPONSE                         |                 |
|                   |               |                                       | 99   | omitted                                    |                 |
|                   |               |                                       | 98   | not admin.                                 |                 |
|                   |               |                                       | 96   | not reached                                |                 |
|                   |               |                                       |      | VLD: MA13028\$'10#70#71#72#79#99#98#96'    |                 |
|                   |               |                                       |      | Flags: SCR: 37 / CAR:F / CAT:SA / DEF: 97  |                 |
|                   |               |                                       |      | COMMENT: Algebra/ Knowing (T) (J_18)       |                 |

| Var. Question No. | Variable Name | Variable Label                           | Code                                                     | Option                                                                                                                                                                                                                                                                                                                        | Location/Format           |
|-------------------|---------------|------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 38 M03_09         | MA13029       | PROVE E IS MIDPOINT OF QUADRILATERAL (2) | 20<br>10<br>79<br>99<br>98<br>96                         | CORRECT RESPONSE<br>PARTIALLY CORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA13029\$'20#10#79#99#98#96'<br>Flags: SCR: 38 / CAR:F / CAT:SA<br>COMMENT: Geometry/ Reasoning (T) (J_19)                                                                                               | 68- 69/C 2.0<br>/ DEF: 97 |
| 39 M04_01         | MA23005       | WHICH TERM HAS A VALUE OF 243 (B)        | 1<br>2<br>3<br>4<br>9<br>8<br>6                          | A<br>B*<br>C<br>D<br>omitted<br>not admin.<br>not reached<br>VLD: MA23005\$'1#2#3#4#9#8#6'<br>Flags: SCR: 39 / CAR:F / CAT:M2<br>COMMENT: Algebra/Knowing (M04_01)                                                                                                                                                            | 70 /C 1.0<br>/ DEF: 7     |
| 40 M04_02         | MA23145       | HOW MANY 3 DIGIT NUMBERS FORMED (1)      | 10<br>70<br>79<br>99<br>98<br>96                         | CORRECT RESPONSE<br>INCORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23145\$'10#70#79#99#98#96'<br>Flags: SCR: 40 / CAR:F / CAT:SA<br>COMMENT: Algebra/Knowing (M09_02)                                                                                                             | 71- 72/C 2.0<br>/ DEF: 97 |
| 41 M04_03         | MA23187       | NEW DIAMETER OF SOUP CAN (2)             | 20<br>21<br>10<br>11<br>12<br>70<br>79<br>99<br>98<br>96 | CORRECT RESPONSE<br>CORRECT RESPONSE<br>PART.CORRECT RESPONSE<br>PART.CORRECT RESPONSE<br>PART.CORRECT RESPONSE<br>INCORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23187\$'20#21#10#11#12#70#79#99#98#96'<br>Flags: SCR: 41 / CAR:F / CAT:SA<br>COMMENT: Algebra/Applying (M04_02) | 73- 74/C 2.0<br>/ DEF: 97 |

| Var. Question No. | Variable Name | Variable Label                          | Code                                               | Option                                                                                                                                                                                                                                                                       | Location/Format           |
|-------------------|---------------|-----------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 42 M04_04         | MA23201       | WHAT IS THE ERROR CARL MADE (1)         | 10<br>79<br>99<br>98<br>96                         | CORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23201\$'10#79#99#98#96'<br>Flags: SCR: 42 / CAR:F / CAT:SA<br>COMMENT: Algebra/Reasoning (M04_03)                                                                                   | 75- 76/C 2.0<br>/ DEF: 97 |
| 43 M04_05         | MA23154       | SECOND DERIVATIVE OF FUNCTION GIVEN (2) | 20<br>10<br>79<br>99<br>98<br>96                   | CORRECT RESPONSE<br>PARTIALLY CORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23154\$'20#10#79#99#98#96'<br>Flags: SCR: 43 / CAR:F / CAT:SA<br>COMMENT: Calculus/Knowing (M04_04)                                                   | 77- 78/C 2.0<br>/ DEF: 97 |
| 44 M04_06         | MA23206       | SIGN OF DERIVATIVE FUNCTION (D)         | 1<br>2<br>3<br>4<br>9<br>8<br>6                    | A<br>B<br>C<br>D*<br>omitted<br>not admin.<br>not reached<br>VLD: MA23206\$'1#2#3#4#9#8#6'<br>Flags: SCR: 44 / CAR:F / CAT:M4<br>COMMENT: Calculus/Reasoning (M04_05)                                                                                                        | 79 /C 1.0<br>/ DEF: 7     |
| 45 M04_07         | MA23166       | UNITS OF COMMODITY TO MAX PROFIT (2)    | 10<br>11<br>70<br>71<br>72<br>79<br>99<br>98<br>96 | CORR.RESPONSE<br>CORR.RESPONSE<br>INCORR.RESPONSE<br>INCORR. RESPONSE<br>INCORR.RESPONSE<br>INCORR.RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23166\$'10#11#70#71#72#79#99#98#96'<br>Flags: SCR: 45 / CAR:F / CAT:SA<br>COMMENT: Calculus/Reasoning (M02_09) | 80- 81/C 2.0<br>/ DEF: 97 |

| Var. Question No. | Variable Name | Variable Label                           | Code | Option                                        | Location/Format |
|-------------------|---------------|------------------------------------------|------|-----------------------------------------------|-----------------|
| 46 M04_08         | MA23043       | AREA ENCLOSED BY GRAPHS OF FUNCTIONS (2) | 20   | CORR.RESP                                     | 82- 83/C 2.0    |
|                   |               |                                          | 21   | CORR.RESP                                     |                 |
|                   |               |                                          | 10   | PART.CORR.RESP                                |                 |
|                   |               |                                          | 11   | PART.CORR.RESP                                |                 |
|                   |               |                                          | 12   | PART.CORR.RESP                                |                 |
|                   |               |                                          | 70   | INCORR.RESP                                   |                 |
|                   |               |                                          | 79   | INCORR.RESP                                   |                 |
|                   |               |                                          | 99   | omitted                                       |                 |
|                   |               |                                          | 98   | not admin.                                    |                 |
|                   |               |                                          | 96   | not reached                                   |                 |
|                   |               |                                          |      | VLD: MA23043\$'20#21#10#11#12#70#79#99#98#96' |                 |
|                   |               |                                          |      | Flags: SCR: 46 / CAR:F / CAT:SA / DEF: 97     |                 |
|                   |               |                                          |      | COMMENT: Calculus/Applying (M04_07)           |                 |
| 47 M04_09         | MA23076       | HOW LONG IS DISTANCE BETWEEN B AND Q (C) | 1    | A                                             | 84 /C 1.0       |
|                   |               |                                          | 2    | B                                             |                 |
|                   |               |                                          | 3    | C*                                            |                 |
|                   |               |                                          | 4    | D                                             |                 |
|                   |               |                                          | 9    | omitted                                       |                 |
|                   |               |                                          | 8    | not admin.                                    |                 |
|                   |               |                                          | 6    | not reached                                   |                 |
|                   |               |                                          |      | VLD: MA23076\$'1#2#3#4#9#8#6'                 |                 |
|                   |               |                                          |      | Flags: SCR: 47 / CAR:F / CAT:M3 / DEF: 7      |                 |
|                   |               |                                          |      | COMMENT: Geometry/Reasoning (M04_08)          |                 |
| 48 M04_10         | MA23176       | WHAT IS THE HEIGHT OF THE LIGHTHOUSE (B) | 1    | A                                             | 85 /C 1.0       |
|                   |               |                                          | 2    | B*                                            |                 |
|                   |               |                                          | 3    | C                                             |                 |
|                   |               |                                          | 4    | D                                             |                 |
|                   |               |                                          | 9    | omitted                                       |                 |
|                   |               |                                          | 8    | not admin.                                    |                 |
|                   |               |                                          | 6    | not reached                                   |                 |
|                   |               |                                          |      | VLD: MA23176\$'1#2#3#4#9#8#6'                 |                 |
|                   |               |                                          |      | Flags: SCR: 48 / CAR:F / CAT:M2 / DEF: 7      |                 |
|                   |               |                                          |      | COMMENT: Geometry/Applying (M03_09)           |                 |
| 49 M04_11         | MA23098       | WHICH IS EQUIVALENT TO EQUATION (C)      | 1    | A                                             | 86 /C 1.0       |
|                   |               |                                          | 2    | B                                             |                 |
|                   |               |                                          | 3    | C*                                            |                 |
|                   |               |                                          | 4    | D                                             |                 |
|                   |               |                                          | 9    | omitted                                       |                 |
|                   |               |                                          | 8    | not admin.                                    |                 |
|                   |               |                                          | 6    | not reached                                   |                 |
|                   |               |                                          |      | VLD: MA23098\$'1#2#3#4#9#8#6'                 |                 |
|                   |               |                                          |      | Flags: SCR: 49 / CAR:F / CAT:M3 / DEF: 7      |                 |
|                   |               |                                          |      | COMMENT: Geometry/Reasoning (M01_09)          |                 |

| Var. Question No. | Variable Name | Variable Label                           | Code                                               | Option                                                                                                                                                                                                                                                                                                | Location/Format |
|-------------------|---------------|------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 50 M05_01         | MA23144       | SUM OF INFINITE GEOMETRIC SERIES (C)     | 1<br>2<br>3<br>4<br>9<br>8<br>6                    | A<br>B<br>C*<br>D<br>omitted<br>not admin.<br>not reached<br>VLD: MA23144\$'1#2#3#4#9#8#6'<br>Flags: SCR: 50 / CAR:F / CAT:M3 / DEF: 7<br>COMMENT: Algebra/Knowing (M05_03)                                                                                                                           | 87 /C 1.0       |
| 51 M05_02         | MA23185       | VALUES OF A AND B IN GIVEN FUNCTION (A)  | 1<br>2<br>3<br>4<br>9<br>8<br>6                    | A*<br>B<br>C<br>D<br>omitted<br>not admin.<br>not reached<br>VLD: MA23185\$'1#2#3#4#9#8#6'<br>Flags: SCR: 51 / CAR:F / CAT:M1 / DEF: 7<br>COMMENT: Algebra/Applying (M05_04)                                                                                                                          | 88 /C 1.0       |
| 52 M05_03         | MA23054       | WHAT IS THE VALUE OF X IN EQUATION (2)   | 20<br>21<br>10<br>70<br>71<br>79<br>99<br>98<br>96 | CORR.RESPONSE<br>CORRECT RESPONSE<br>PART.CORRECT RESPONSE<br>INCORRECT RESPONSE<br>INCORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23054\$'20#21#10#70#71#79#99#98#96'<br>Flags: SCR: 52 / CAR:F / CAT:SA / DEF: 97<br>COMMENT: Algebra/Applying (M05_02) | 89- 90/C 2.0    |
| 53 M05_04         | MA23064       | WHAT IS THE VALUE OF K IN POLYNOMIAL (A) | 1<br>2<br>3<br>4<br>9<br>8<br>6                    | A*<br>B<br>C<br>D<br>omitted<br>not admin.<br>not reached<br>VLD: MA23064\$'1#2#3#4#9#8#6'<br>Flags: SCR: 53 / CAR:F / CAT:M1 / DEF: 7<br>COMMENT: Algebra/Knowing (M05_01)                                                                                                                           | 91 /C 1.0       |

| Var. Question No. | Variable Name | Variable Label                           | Code                                   | Option                                                                                                                                                                                                                                                        | Location/Format                                   |
|-------------------|---------------|------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 54 M05_05A        | MA23131A      | LENGTH OF STRAIGHT LINE AB IN METERS (1) | 10<br>70<br>79<br>99<br>98<br>96       | CORRECT RESPONSE<br>INCORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23131A\$'10#70#79#99#98#96'<br>Flags: SCR: 54 / CAR:F / CAT:SA<br>COMMENT: Algebra/Applying (M05_06)                                           | 92- 93/C 2.0<br><br><br><br><br><br><br>/ DEF: 97 |
| 55 M05_05B        | MA23131B      | COST TO PAINT THE DECK (1)               | 10<br>11<br>70<br>79<br>99<br>98<br>96 | CORRECT RESPONSE<br>CORRECT RESPONSE<br>INCORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23131B\$'10#11#70#79#99#98#96'<br>Flags: SCR: 55 / CAR:F / CAT:SA<br>COMMENT: Calculus/Applying (M05_06)                   | 94- 95/C 2.0<br><br><br><br><br><br><br>/ DEF: 97 |
| 56 M05_06         | MA23157       | FIND POINT OF MAXIMA AND INFLECTION (2)  | 20<br>10<br>11<br>79<br>99<br>98<br>96 | CORRECT RESPONSE<br>PARTIALLY CORRECT RESPONSE<br>PARTIALLY CORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23157\$'20#10#11#79#99#98#96'<br>Flags: SCR: 56 / CAR:F / CAT:SA<br>COMMENT: Calculus/Reasoning (M05_05) | 96- 97/C 2.0<br><br><br><br><br><br><br>/ DEF: 97 |
| 57 M05_07         | MA23045       | WHAT IS THE VALUE OF A (C)               | 1<br>2<br>3<br>4<br>9<br>8<br>6        | A<br>B<br>C*<br>D<br>omitted<br>not admin.<br>not reached<br>VLD: MA23045\$'1#2#3#4#9#8#6'<br>Flags: SCR: 57 / CAR:F / CAT:M3<br>COMMENT: Calculus/Reasoning (M08_04)                                                                                         | 98 /C 1.0<br><br><br><br><br><br><br>/ DEF: 7     |

| Var. Question No. | Variable Name | Variable Label                        | Code                                                           | Option                                                                                                                                                                                                                                                                                                  | Location/Format |
|-------------------|---------------|---------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 58 M05_08         | MA23082       | COORDINATES OF FOURTH VERTEX D (A)    | 1<br>2<br>3<br>4<br>9<br>8<br>6                                | A*<br>B<br>C<br>D<br>omitted<br>not admin.<br>not reached<br>VLD: MA23082\$'1#2#3#4#9#8#6'<br>Flags: SCR: 58 / CAR:F / CAT:M1 / DEF: 7<br>COMMENT: Geometry/Applying (M06_07)                                                                                                                           | 99 /C 1.0       |
| 59 M05_09         | MA23020       | AMPLITUDE AND PERIOD OF FUNCTION (D)  | 1<br>2<br>3<br>4<br>9<br>8<br>6                                | A<br>B<br>C<br>D*<br>omitted<br>not admin.<br>not reached<br>VLD: MA23020\$'1#2#3#4#9#8#6'<br>Flags: SCR: 59 / CAR:F / CAT:M4 / DEF: 7<br>COMMENT: Geometry/Knowing (M02_07)                                                                                                                            | 100 /C 1.0      |
| 60 M05_10         | MA23094       | FIND LENGTH OF BC IN TRIANGLE ABC (2) | 20<br>21<br>22<br>10<br>11<br>12<br>70<br>79<br>99<br>98<br>96 | CORR RESP<br>CORR RESP<br>CORR RESP<br>PART CORR RESP<br>PART CORR RESP<br>PART CORR RESP<br>INCORR RESP<br>INCORR RESP<br>omitted<br>not admin.<br>not reached<br>VLD: MA23094\$'20#21#22#10#11#12#70#79#99#98#96'<br>Flags: SCR: 60 / CAR:F / CAT:SA / DEF: 97<br>COMMENT: Geometry/Applying (M05_09) | 101- 102/C 2.0  |
| 61 M06_01         | MA23069       | SUM OF INFINITE GEOMETRIC SERIES (D)  | 1<br>2<br>3<br>4<br>9<br>8<br>6                                | A<br>B<br>C<br>D*<br>omitted<br>not admin.<br>not reached<br>VLD: MA23069\$'1#2#3#4#9#8#6'<br>Flags: SCR: 61 / CAR:F / CAT:M4 / DEF: 7<br>COMMENT: Algebra/Applying (M06_01)                                                                                                                            | 103 /C 1.0      |

| Var. Question No. | Variable Name | Variable Label                         | Code                                               | Option                                                                                                                                                                                                                                                                                               | Location/Format |
|-------------------|---------------|----------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 62 M06_02         | MA23135       | VALUES OF X TO SATISFY INEQUALITY (1)  | 10<br>79<br>99<br>98<br>96                         | CORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23135\$'10#79#99#98#96'<br>Flags: SCR: 62 / CAR:F / CAT:SA / DEF: 97<br>COMMENT: Algebra/Applying (M06_03)                                                                                                  | 104- 105/C 2.0  |
| 63 M06_03         | MA23208       | VOLUME V AS FUNCTION OF DIAMETER D (A) | 1<br>2<br>3<br>4<br>9<br>8<br>6                    | A*<br>B<br>C<br>D<br>omitted<br>not admin.<br>not reached<br>VLD: MA23208\$'1#2#3#4#9#8#6'<br>Flags: SCR: 63 / CAR:F / CAT:M1 / DEF: 7<br>COMMENT: Algebra/Reasoning (M01_03)                                                                                                                        | 106 /C 1.0      |
| 64 M06_04         | MA23165       | LIMIT OF THE GIVEN ESPRESSION (1)      | 10<br>11<br>12<br>70<br>71<br>79<br>99<br>98<br>96 | CORRECT RESPONSE<br>CORRECT RESPONSE<br>CORRECT RESPONSE<br>INCORRECT RESPONSE<br>INCORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23165\$'10#11#12#70#71#79#99#98#96'<br>Flags: SCR: 64 / CAR:F / CAT:SA / DEF: 97<br>COMMENT: Calculus/Applying (M06_10) | 107- 108/C 2.0  |
| 65 M06_05         | MA23039       | DERIVATIVE OF EXPONENTIAL FUNCTION (D) | 1<br>2<br>3<br>4<br>9<br>8<br>6                    | A<br>B<br>C<br>D*<br>omitted<br>not admin.<br>not reached<br>VLD: MA23039\$'1#2#3#4#9#8#6'<br>Flags: SCR: 65 / CAR:F / CAT:M4 / DEF: 7<br>COMMENT: Calculus/Knowing (M01_08)                                                                                                                         | 109 /C 1.0      |

| Var. Question No. | Variable Name | Variable Label                           | Code                                                     | Option                                                                                                                                                                                                                                                                                                       | Location/Format |
|-------------------|---------------|------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 66 M06_06         | MA23159       | DERIVATIVE OF THE GIVEN EXPRESSION (1)   | 10<br>11<br>70<br>71<br>72<br>73<br>79<br>99<br>98<br>96 | CORRECT RESPONSE<br>CORR.RESPONSE<br>INCORR.RESPONSE<br>INCORR.RESPONSE<br>INCORR.RESPONSE<br>INCORR.RESPONSE<br>INCORR.RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23159\$'10#11#70#71#72#73#79#99#98#96'<br>Flags: SCR: 66 / CAR:F / CAT:SA / DEF: 97<br>COMMENT: Calculus/Knowing (M06_05) | 110- 111/C 2.0  |
| 67 M06_07         | MA23198       | WHY SLOPE AT POINTS A AND B ARE SAME (1) | 10<br>11<br>70<br>71<br>79<br>99<br>98<br>96             | CORRECT RESPONSE<br>CORRECT RESPONSE<br>INCORRECT RESPONSE<br>INCORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23198\$'10#11#70#71#79#99#98#96'<br>Flags: SCR: 67 / CAR:F / CAT:SA / DEF: 97<br>COMMENT: Calculus/Reasoning (M06_04)                               | 112- 113/C 2.0  |
| 68 M06_08         | MA23042       | INTEGRAL OF THE GIVEN EXPRESSION (B)     | 1<br>2<br>3<br>4<br>9<br>8<br>6                          | A<br>B*<br>C<br>D<br>omitted<br>not admin.<br>not reached<br>VLD: MA23042\$'1#2#3#4#9#8#6'<br>Flags: SCR: 68 / CAR:F / CAT:M2 / DEF: 7<br>COMMENT: Calculus/Knowing (M06_06)                                                                                                                                 | 114 /C 1.0      |
| 69 M06_09         | MA23055       | EQUATION OF CIRCLE SHOWN (D)             | 1<br>2<br>3<br>4<br>9<br>8<br>6                          | A<br>B<br>C<br>D*<br>omitted<br>not admin.<br>not reached<br>VLD: MA23055\$'1#2#3#4#9#8#6'<br>Flags: SCR: 69 / CAR:F / CAT:M4 / DEF: 7<br>COMMENT: Geometry/Knowing (M06_08)                                                                                                                                 | 115 /C 1.0      |

| Var. Question No. | Variable Name | Variable Label                        | Code | Option                                   | Location/Format |
|-------------------|---------------|---------------------------------------|------|------------------------------------------|-----------------|
| 70 M06_10         | MA23080       | NUMBER OF SOLUTIONS OF EQUATION (A)   | 1    | A*                                       | 116 /C 1.0      |
|                   |               |                                       | 2    | B                                        |                 |
|                   |               |                                       | 3    | C                                        |                 |
|                   |               |                                       | 4    | D                                        |                 |
|                   |               |                                       | 9    | omitted                                  |                 |
|                   |               |                                       | 8    | not admin.                               |                 |
|                   |               |                                       | 6    | not reached                              |                 |
|                   |               |                                       |      | VLD: MA23080\$'1#2#3#4#9#8#6'            |                 |
|                   |               |                                       |      | Flags: SCR: 70 / CAR:F / CAT:M1 / DEF: 7 |                 |
|                   |               |                                       |      | COMMENT: Geometry/Reasoning (M01_06)     |                 |
| 71 M06_11         | MA23021       | EQUATION FOR WIDTH OF EACH WINDOW (B) | 1    | A                                        | 117 /C 1.0      |
|                   |               |                                       | 2    | B*                                       |                 |
|                   |               |                                       | 3    | C                                        |                 |
|                   |               |                                       | 4    | D                                        |                 |
|                   |               |                                       | 9    | omitted                                  |                 |
|                   |               |                                       | 8    | not admin.                               |                 |
|                   |               |                                       | 6    | not reached                              |                 |
|                   |               |                                       |      | VLD: MA23021\$'1#2#3#4#9#8#6'            |                 |
|                   |               |                                       |      | Flags: SCR: 71 / CAR:F / CAT:M2 / DEF: 7 |                 |
|                   |               |                                       |      | COMMENT: Geometry/Applying (M06_09)      |                 |
| 72 M07_01         | MA23004       | THICKNESS OF PILE OF PAPERS (B)       | 1    | A                                        | 118 /C 1.0      |
|                   |               |                                       | 2    | B*                                       |                 |
|                   |               |                                       | 3    | C                                        |                 |
|                   |               |                                       | 4    | D                                        |                 |
|                   |               |                                       | 9    | omitted                                  |                 |
|                   |               |                                       | 8    | not admin.                               |                 |
|                   |               |                                       | 6    | not reached                              |                 |
|                   |               |                                       |      | VLD: MA23004\$'1#2#3#4#9#8#6'            |                 |
|                   |               |                                       |      | Flags: SCR: 72 / CAR:F / CAT:M2 / DEF: 7 |                 |
|                   |               |                                       |      | COMMENT: Algebra/Reasoning (M07_04)      |                 |
| 73 M07_02         | MA23063       | WHICH IS EQUAL TO 5 OVER X (B)        | 1    | A                                        | 119 /C 1.0      |
|                   |               |                                       | 2    | B*                                       |                 |
|                   |               |                                       | 3    | C                                        |                 |
|                   |               |                                       | 4    | D                                        |                 |
|                   |               |                                       | 9    | omitted                                  |                 |
|                   |               |                                       | 8    | not admin.                               |                 |
|                   |               |                                       | 6    | not reached                              |                 |
|                   |               |                                       |      | VLD: MA23063\$'1#2#3#4#9#8#6'            |                 |
|                   |               |                                       |      | Flags: SCR: 73 / CAR:F / CAT:M2 / DEF: 7 |                 |
|                   |               |                                       |      | COMMENT: Algebra/Applying (M02_02)       |                 |

| Var. Question No. | Variable Name | Variable Label                           | Code                                                                 | Option                                                                                                                                                                                                                                                                                                     | Location/Format |
|-------------------|---------------|------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 74 M07_03         | MA23141       | FIND VALUES OF A B AND C IN EQUATION (1) | 10<br>11<br>12<br>13<br>19<br>70<br>71<br>72<br>79<br>99<br>98<br>96 | CORR RESP<br>CORR RESP<br>CORR RESP<br>CORR RESP<br>CORR RESP<br>INCORR RESP<br>INCORR RESP<br>INCORR RESP<br>INCORR RESP<br>omitted<br>not admin.<br>not reached<br>VLD: MA23141\$'10#11#12#13#19#70#71#72#79#99#98#96'<br>Flags: SCR: 74 / CAR:F / CAT:SA / DEF: 97<br>COMMENT: Algebra/Knowing (M07_06) | 120- 121/C 2.0  |
| 75 M07_04         | MA23133       | MINIMUM VALUE OF THE GIVEN FUNCTION (D)  | 1<br>2<br>3<br>4<br>9<br>8<br>6                                      | A<br>B<br>C<br>D*<br>omitted<br>not admin.<br>not reached<br>VLD: MA23133\$'1#2#3#4#9#8#6'<br>Flags: SCR: 75 / CAR:F / CAT:M4 / DEF: 7<br>COMMENT: Algebra/Knowing (M03_03)                                                                                                                                | 122 /C 1.0      |
| 76 M07_05         | MA23158       | DISTANCE CAR TRAVELS AFTER BRAKING (D)   | 1<br>2<br>3<br>4<br>9<br>8<br>6                                      | A<br>B<br>C<br>D*<br>omitted<br>not admin.<br>not reached<br>VLD: MA23158\$'1#2#3#4#9#8#6'<br>Flags: SCR: 76 / CAR:F / CAT:M4 / DEF: 7<br>COMMENT: Calculus/Applying (M08_02)                                                                                                                              | 123 /C 1.0      |
| 77 M07_06         | MA23151       | GRAPH THAT HAS PROPERTIES SHOWN (C)      | 1<br>2<br>3<br>4<br>9<br>8<br>6                                      | A<br>B<br>C*<br>D<br>omitted<br>not admin.<br>not reached<br>VLD: MA23151\$'1#2#3#4#9#8#6'<br>Flags: SCR: 77 / CAR:F / CAT:M3 / DEF: 7<br>COMMENT: Calculus/Reasoning (M07_08)                                                                                                                             | 124 /C 1.0      |

| Var. Question No. | Variable Name | Variable Label                       | Code | Option                                | Location/Format |
|-------------------|---------------|--------------------------------------|------|---------------------------------------|-----------------|
| 78 M07_07A        | MA23035A      | VALUES OF POINTS OF INTERSECTION (1) | 10   | CORRECT RESPONSE                      | 125- 126/C 2.0  |
|                   |               |                                      | 70   | INCORRECT RESPONSE                    |                 |
|                   |               |                                      | 79   | INCORRECT RESPONSE                    |                 |
|                   |               |                                      | 99   | omitted                               |                 |
|                   |               |                                      | 98   | not admin.                            |                 |
|                   |               |                                      | 96   | not reached                           |                 |
|                   |               |                                      |      | VLD: MA23035A\$'10#70#79#99#98#96'    |                 |
|                   |               |                                      |      | Flags: SCR: 78 / CAR:F / CAT:SA       | / DEF: 97       |
|                   |               |                                      |      | COMMENT: Calculus/Applying (M07_07)   |                 |
| 79 M07_07B        | MA23035B      | MAX AND MIN POINTS OF GRAPH (1)      | 10   | CORRECT RESPONSE                      | 127- 128/C 2.0  |
|                   |               |                                      | 70   | INCORRECT RESPONSE                    |                 |
|                   |               |                                      | 71   | INCORRECT RESPONSE                    |                 |
|                   |               |                                      | 79   | INCORRECT RESPONSE                    |                 |
|                   |               |                                      | 99   | omitted                               |                 |
|                   |               |                                      | 98   | not admin.                            |                 |
|                   |               |                                      | 96   | not reached                           |                 |
|                   |               |                                      |      | VLD: MA23035B\$'10#70#71#79#99#98#96' |                 |
|                   |               |                                      |      | Flags: SCR: 79 / CAR:F / CAT:SA       | / DEF: 97       |
|                   |               |                                      |      | COMMENT: Calculus/Applying (M07_07)   |                 |
| 80 M07_08         | MA23050       | VALUE OF DEFINITE INTEGRAL (B)       | 1    | A                                     | 129 /C 1.0      |
|                   |               |                                      | 2    | B*                                    |                 |
|                   |               |                                      | 3    | C                                     |                 |
|                   |               |                                      | 4    | D                                     |                 |
|                   |               |                                      | 9    | omitted                               |                 |
|                   |               |                                      | 8    | not admin.                            |                 |
|                   |               |                                      | 6    | not reached                           |                 |
|                   |               |                                      |      | VLD: MA23050\$'1#2#3#4#9#8#6'         |                 |
|                   |               |                                      |      | Flags: SCR: 80 / CAR:F / CAT:M2       | / DEF: 7        |
|                   |               |                                      |      | COMMENT: Calculus/Knowing (M01_04)    |                 |
| 81 M07_09         | MA23041       | WHAT IS THE INTEGRAL (A)             | 1    | A*                                    | 130 /C 1.0      |
|                   |               |                                      | 2    | B                                     |                 |
|                   |               |                                      | 3    | C                                     |                 |
|                   |               |                                      | 4    | D                                     |                 |
|                   |               |                                      | 9    | omitted                               |                 |
|                   |               |                                      | 8    | not admin.                            |                 |
|                   |               |                                      | 6    | not reached                           |                 |
|                   |               |                                      |      | VLD: MA23041\$'1#2#3#4#9#8#6'         |                 |
|                   |               |                                      |      | Flags: SCR: 81 / CAR:F / CAT:M1       | / DEF: 7        |
|                   |               |                                      |      | COMMENT: Calculus/Knowing (M07_03)    |                 |

| Var. Question No. | Variable Name | Variable Label                   | Code                                         | Option                                                                                                                                                                                                                                                                        | Location/Format |
|-------------------|---------------|----------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 82 M07_10         | MA23182       | POSSIBLE VALUES FOR X (D)        | 1<br>2<br>3<br>4<br>9<br>8<br>6              | A<br>B<br>C<br>D*<br>omitted<br>not admin.<br>not reached<br>VLD: MA23182\$'1#2#3#4#9#8#6'<br>Flags: SCR: 82 / CAR:F / CAT:M4 / DEF: 7<br>COMMENT: Geometry/Applying (M07_09)                                                                                                 | 131 /C 1.0      |
| 83 M07_11         | MA23170       | IS LINE L PARALLEL WITH PQ (1)   | 10<br>11<br>70<br>71<br>79<br>99<br>98<br>96 | CORRECT RESPONSE<br>CORRECT RESPONSE<br>INCORRECT RESPONSE<br>INCORRECT RESPONSE<br>INCORRECT RESPONSE<br>omitted<br>not admin.<br>not reached<br>VLD: MA23170\$'10#11#70#71#79#99#98#96'<br>Flags: SCR: 83 / CAR:F / CAT:SA / DEF: 97<br>COMMENT: Geometry/Applying (M01_10) | 132- 133/C 2.0  |
| 84 CUS-01         | MUS01         | CUS\USE CALCULATOR FOR ANSWERING | 1<br>2<br>9<br>8                             | YES<br>NO<br>omitted<br>not admin.<br>VLD: CUS01\$'1#2#9#8'<br>Flags: SCR: 84 / CAR:F / CAT:BD / DEF: 7<br>COMMENT: Calculator Use Survey                                                                                                                                     | 134 /C 1.0      |
| 85 CUS-02         | MUS02         | CUS\TYPE OF CALCULATOR           | 1<br>2<br>3<br>4<br>9<br>8                   | SIMPLE<br>SCIENTIFIC<br>GRAPHING<br>SYMBOLIC<br>omitted<br>not admin.<br>VLD: CUS02\$'1#2#3#4#9#8'<br>Flags: SCR: 85 / CAR:F / CAT:BD / DEF: 7<br>COMMENT: Calculator Use Survey                                                                                              | 135 /C 1.0      |

| Var. Question No. | Variable Name | Variable Label                     | Code   | Option                                   | Location/Format |
|-------------------|---------------|------------------------------------|--------|------------------------------------------|-----------------|
| 86 CUS-03         | MUS03         | CUS\FREQUENCY OF USING CALCULATOR  | 1      | VERY LITTLE (FEWER THAN 5 TIMES)         | 136 /C 1.0      |
|                   |               |                                    | 2      | SOMEWHAT (BETWEEN 5 AND 10 TIMES)        |                 |
|                   |               |                                    | 3      | QUITE A LOT (MORE THAN 10 TIMES)         |                 |
|                   |               |                                    | 9      | omitted                                  |                 |
|                   |               |                                    | 8      | not admin.                               |                 |
|                   |               |                                    |        | VLD: CUS03\$'1#2#3#9#8'                  |                 |
|                   |               |                                    |        | Flags: SCR: 86 / CAR:F / CAT:BD / DEF: 7 |                 |
|                   |               |                                    |        | COMMENT: Calculator Use Survey           |                 |
| 87 SEX            | ITSEX         | SEX OF STUDENT                     | 1      | GIRL                                     | 137 /C 1.0      |
|                   |               |                                    | 2      | BOY                                      |                 |
|                   |               |                                    | 9      | omitted                                  |                 |
|                   |               |                                    | 8      | not admin.                               |                 |
|                   |               |                                    |        | VLD: ITSEX\$'1#2#9#8'                    |                 |
|                   |               |                                    |        | Flags: SCR: 87 / CAR:F / CAT:IT / DEF:   |                 |
|                   |               |                                    |        | COMMENT:                                 |                 |
| 88 LANG           | ITLANG        | LANGUAGE OF TESTING                | 1      | TEST LANGUAGE                            | 138 /C 1.0      |
|                   |               |                                    | 2      | COUNTRY SPECIFIC                         |                 |
|                   |               |                                    | 3      | COUNTRY SPECIFIC                         |                 |
|                   |               |                                    | 4      | COUNTRY SPECIFIC                         |                 |
|                   |               |                                    | 5      | COUNTRY SPECIFIC                         |                 |
|                   |               |                                    | 6      | COUNTRY SPECIFIC                         |                 |
|                   |               |                                    | 9      | omitted                                  |                 |
|                   |               |                                    | 8      | not admin.                               |                 |
|                   |               |                                    |        | VLD: ITLANG\$'1#2#3#4#5#6#9#8'           |                 |
|                   |               |                                    |        | Flags: SCR: 88 / CAR:T / CAT:IT / DEF:   |                 |
|                   |               |                                    |        | COMMENT:                                 |                 |
| 89 SYSTEM         | SSYSTEM       | RECORD NUMBER STUDENT GENERAL FILE | VALUE  | SSYSTEM PROC                             | 139- 144/N 6.0  |
|                   |               |                                    | 999999 | omitted                                  |                 |
|                   |               |                                    | 999998 | not admin.                               |                 |
|                   |               |                                    |        | VLD: .T.                                 |                 |
|                   |               |                                    |        | Flags: SCR: 89 / CAR:F / CAT:PROC / DEF: |                 |
|                   |               |                                    |        | COMMENT:                                 |                 |
| 90 RELIABLE       | ILRELIAB      | RELIABILITY CODING STATUS          | 0      | STUDENTS BOOKLET NOT USED FOR R-SCORI    | 145 /C 1.0      |
|                   |               |                                    | 1      | STUDENTS BOOKLET WAS USED FOR R-SCORING  |                 |
|                   |               |                                    | 9      | omitted                                  |                 |
|                   |               |                                    | 8      | not admin.                               |                 |
|                   |               |                                    |        | VLD: ILRELIAB\$'0#1#9#8'                 |                 |
|                   |               |                                    |        | Flags: SCR: 90 / CAR:F / CAT:IL / DEF:   |                 |
|                   |               |                                    |        | COMMENT:                                 |                 |

| Var. Question No. | Variable Name | Variable Label             | Code | Option                                                                           | Location/Format |
|-------------------|---------------|----------------------------|------|----------------------------------------------------------------------------------|-----------------|
| 91                | ITPART        | FINAL PARTICIPATION STATUS | 0    | STD EXCL, DID NOT PARTICIPATE                                                    | 146- 147/C 2.0  |
|                   |               |                            | 1    | STD LEFT SCHOOL                                                                  |                 |
|                   |               |                            | 2    | STD ABSENT                                                                       |                 |
|                   |               |                            | 3    | STD PARTICIPATED                                                                 |                 |
|                   |               |                            | 4    | PAR PERM DENIED                                                                  |                 |
|                   |               |                            | 5    | STD EXCL, BUT DATA AVAILABLE                                                     |                 |
|                   |               |                            | 6    | STD REMOVED FROM SAMPLE                                                          |                 |
|                   |               |                            | 7    | BOOKLET LOST                                                                     |                 |
|                   |               |                            | 99   | omitted                                                                          |                 |
|                   |               |                            | 98   | not admin.                                                                       |                 |
|                   |               |                            |      | VLD: ITPART\$'0#1#2#3#4#5#6#7#99#98'                                             |                 |
|                   |               |                            |      | Flags: SCR: 91 / CAR:F / CAT:IT / DEF:                                           |                 |
|                   |               |                            |      | COMMENT: derived variable, summarizing the information of ITPART1,2 and IDEXCLUD |                 |
| 92                | POPULATION    | POPULATION ID              | 1    | TIMSS Pop 1                                                                      | 148 /C 1.0      |
|                   |               |                            | 2    | TIMSS Pop 2                                                                      |                 |
|                   |               |                            | 3    | TIMSS Pop 3                                                                      |                 |
|                   |               |                            | 9    | omitted                                                                          |                 |
|                   |               |                            | 8    | not admin.                                                                       |                 |
|                   |               |                            |      | VLD: IDPOP\$'1#2#3#9#8'                                                          |                 |
|                   |               |                            |      | Flags: SCR: 92 / CAR:F / CAT:ID / DEF:                                           |                 |
|                   |               |                            |      | COMMENT:                                                                         |                 |
| 93                | GRADE         | GRADE ID                   | 10   | GRADE 10                                                                         | 149- 150/C 2.0  |
|                   |               |                            | 11   | GRADE 11                                                                         |                 |
|                   |               |                            | 12   | GRADE 12                                                                         |                 |
|                   |               |                            | 13   | GRADE 13                                                                         |                 |
|                   |               |                            | 14   | GRADE 14                                                                         |                 |
|                   |               |                            | 99   | omitted                                                                          |                 |
|                   |               |                            | 98   | not admin.                                                                       |                 |
|                   |               |                            |      | VLD: IDGRADE\$'10#11#12#13#14#99#98'                                             |                 |
|                   |               |                            |      | Flags: SCR: 93 / CAR:T / CAT:ID / DEF:                                           |                 |
|                   |               |                            |      | COMMENT:                                                                         |                 |
| 94                | GRADE         | STANDARDIZED GRADE ID      | 1    | lower grade                                                                      | 151 /C 1.0      |
|                   |               |                            | 2    | upper grade                                                                      |                 |
|                   |               |                            | 9    | omitted                                                                          |                 |
|                   |               |                            | 8    | not admin.                                                                       |                 |
|                   |               |                            |      | VLD: IDGRADER\$'1#2#9#8'                                                         |                 |
|                   |               |                            |      | Flags: SCR: 94 / CAR:F / CAT:ID / DEF:                                           |                 |
|                   |               |                            |      | COMMENT:                                                                         |                 |

| Var. Question No. | Variable Name | Variable Label                 | Code                      | Option                                                                                        | Location/Format |
|-------------------|---------------|--------------------------------|---------------------------|-----------------------------------------------------------------------------------------------|-----------------|
| 95                | IDSTRATE      | EXPLICIT STRATUM CODE          | VALUE<br>999<br>998       | IDSTRATE ID<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 95 / CAR:F / CAT:STRA / DEF:  | 152- 154/N 3.0  |
| COMMENT:          |               |                                |                           |                                                                                               |                 |
| 96                | IDSTRATI      | IMPLICIT STRATUM CODE          | VALUE<br>999<br>998       | IDSTRATI ID<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 96 / CAR:F / CAT:ID / DEF:    | 155- 157/N 3.0  |
| COMMENT:          |               |                                |                           |                                                                                               |                 |
| 97                | WEIGHT        | JKREP JACKKNIFE REPLICATE CODE | VALUE<br>9<br>8           | JKREP JCKF<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 97 / CAR:F / CAT:JCKF / DEF:   | 158 /N 1.0      |
| COMMENT:          |               |                                |                           |                                                                                               |                 |
| 98                | WEIGHT        | JKZONE JACKKNIFE ZONE          | VALUE<br>99<br>98         | JKZONE JCKF<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 98 / CAR:F / CAT:JCKF / DEF:  | 159- 160/N 2.0  |
| COMMENT:          |               |                                |                           |                                                                                               |                 |
| 99                | WEIGHT        | HOUWGT HOUSE WEIGHT            | VALUE<br>999999<br>999998 | HOUWGT SWGT<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 99 / CAR:F / CAT:SWGT / DEF:  | 161- 173/N 13.6 |
| COMMENT:          |               |                                |                           |                                                                                               |                 |
| 100               | WEIGHT        | SENWGT SENATE WEIGHT           | VALUE<br>999999<br>999998 | SENWGT SWGT<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 100 / CAR:F / CAT:SWGT / DEF: | 174- 186/N 13.6 |
| COMMENT:          |               |                                |                           |                                                                                               |                 |
| 101               | WEIGHT        | TOTWGT TOTAL STUDENT WEIGHT    | VALUE<br>999999<br>999998 | TOTWGT SWGT<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 101 / CAR:F / CAT:SWGT / DEF: | 187- 199/N 13.6 |
| COMMENT:          |               |                                |                           |                                                                                               |                 |

| Var. Question No. | Variable Name | Variable Label                          | Code                  | Option                                                                                          | Location/Format |
|-------------------|---------------|-----------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------|-----------------|
| 102 SCORE         | MSMMAT01      | ADVANCED MATHEMATICS PV1                | VALUE<br>999<br>998   | MSMMAT01 ISCR<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 102 / CAR:F / CAT:ISCR / DEF: | 200- 205/N 6.2  |
| COMMENT:          |               |                                         |                       |                                                                                                 |                 |
| 103 SCORE         | MSMMAT02      | ADVANCED MATHEMATICS PV2                | VALUE<br>999<br>998   | MSMMAT02 ISCR<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 103 / CAR:F / CAT:ISCR / DEF: | 206- 211/N 6.2  |
| COMMENT:          |               |                                         |                       |                                                                                                 |                 |
| 104 SCORE         | MSMMAT03      | ADVANCED MATHEMATICS PV3                | VALUE<br>999<br>998   | MSMMAT03 ISCR<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 104 / CAR:F / CAT:ISCR / DEF: | 212- 217/N 6.2  |
| COMMENT:          |               |                                         |                       |                                                                                                 |                 |
| 105 SCORE         | MSMMAT04      | ADVANCED MATHEMATICS PV4                | VALUE<br>999<br>998   | MSMMAT04 ISCR<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 105 / CAR:F / CAT:ISCR / DEF: | 218- 223/N 6.2  |
| COMMENT:          |               |                                         |                       |                                                                                                 |                 |
| 106 SCORE         | MSMMAT05      | ADVANCED MATHEMATICS PV5                | VALUE<br>999<br>998   | MSMMAT05 ISCR<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 106 / CAR:F / CAT:ISCR / DEF: | 224- 229/N 6.2  |
| COMMENT:          |               |                                         |                       |                                                                                                 |                 |
| 107 SCORE         | MSMNRSC       | NATIONAL ADV. MATH RASCH SCORE (150,10) | VALUE<br>9999<br>9998 | MSMNRSC NSCR<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 107 / CAR:F / CAT:NSCR / DEF:  | 230- 237/N 8.3  |
| COMMENT:          |               |                                         |                       |                                                                                                 |                 |
| 108 SCORE         | MSMSCPT       | RAW SCORE ON ADV. MATH ITEMS            | VALUE<br>99<br>98     | MSMSCPT NSCR<br>omitted<br>not admin.<br>VLD: .T.<br>Flags: SCR: 108 / CAR:F / CAT:NSCR / DEF:  | 238- 239/N 2.0  |
| COMMENT:          |               |                                         |                       |                                                                                                 |                 |

| Var. Question No. | Variable Name | Variable Label                           | Code     | Option                                    | Location/Format |
|-------------------|---------------|------------------------------------------|----------|-------------------------------------------|-----------------|
| 109 SCORE         | MSMSTDR       | STANDARDIZED ADV. MATH RAW SCORE (50,10) | VALUE    | MSMSTDR NSCR                              | 240- 247/N 8.3  |
|                   |               |                                          | 9999     | omitted                                   |                 |
|                   |               |                                          | 9998     | not admin.                                |                 |
|                   |               |                                          |          | VLD: .T.                                  |                 |
|                   |               |                                          |          | Flags: SCR: 109 / CAR:F / CAT:NSCR / DEF: |                 |
|                   |               |                                          | COMMENT: |                                           |                 |
| 110 BENCHMARK     | MSMIBM01      | MATH INTL BNCHMRK REACHED WITH 1ST PV    | 1        | BELOW 475                                 | 248 /C 1.0      |
|                   |               |                                          | 2        | AT OR ABOVE 475 BUT BELOW 550             |                 |
|                   |               |                                          | 3        | AT OR ABOVE 550 BUT BELOW 625             |                 |
|                   |               |                                          | 4        | AT OR ABOVE 625                           |                 |
|                   |               |                                          | 9        | omitted                                   |                 |
|                   |               |                                          | 8        | not admin.                                |                 |
|                   |               |                                          |          | VLD: MSMIBM01\$'1#2#3#4#9#8'              |                 |
|                   |               |                                          |          | Flags: SCR: 110 / CAR:F / CAT:D / DEF:    |                 |
|                   |               |                                          | COMMENT: |                                           |                 |
| 111 BENCHMARK     | MSMIBM02      | MATH INTL BNCHMRK REACHED WITH 2ND PV    | 1        | BELOW 475                                 | 249 /C 1.0      |
|                   |               |                                          | 2        | AT OR ABOVE 475 BUT BELOW 550             |                 |
|                   |               |                                          | 3        | AT OR ABOVE 550 BUT BELOW 625             |                 |
|                   |               |                                          | 4        | AT OR ABOVE 625                           |                 |
|                   |               |                                          | 9        | omitted                                   |                 |
|                   |               |                                          | 8        | not admin.                                |                 |
|                   |               |                                          |          | VLD: MSMIBM02\$'1#2#3#4#9#8'              |                 |
|                   |               |                                          |          | Flags: SCR: 111 / CAR:F / CAT:D / DEF:    |                 |
|                   |               |                                          | COMMENT: |                                           |                 |
| 112 BENCHMARK     | MSMIBM03      | MATH INTL BNCHMRK REACHED WITH 3RD PV    | 1        | BELOW 475                                 | 250 /C 1.0      |
|                   |               |                                          | 2        | AT OR ABOVE 475 BUT BELOW 550             |                 |
|                   |               |                                          | 3        | AT OR ABOVE 550 BUT BELOW 625             |                 |
|                   |               |                                          | 4        | AT OR ABOVE 625                           |                 |
|                   |               |                                          | 9        | omitted                                   |                 |
|                   |               |                                          | 8        | not admin.                                |                 |
|                   |               |                                          |          | VLD: MSMIBM03\$'1#2#3#4#9#8'              |                 |
|                   |               |                                          |          | Flags: SCR: 112 / CAR:F / CAT:D / DEF:    |                 |
|                   |               |                                          | COMMENT: |                                           |                 |
| 113 BENCHMARK     | MSMIBM04      | MATH INTL BNCHMRK REACHED WITH 4TH PV    | 1        | BELOW 475                                 | 251 /C 1.0      |
|                   |               |                                          | 2        | AT OR ABOVE 475 BUT BELOW 550             |                 |
|                   |               |                                          | 3        | AT OR ABOVE 550 BUT BELOW 625             |                 |
|                   |               |                                          | 4        | AT OR ABOVE 625                           |                 |
|                   |               |                                          | 9        | omitted                                   |                 |
|                   |               |                                          | 8        | not admin.                                |                 |
|                   |               |                                          |          | VLD: MSMIBM04\$'1#2#3#4#9#8'              |                 |
|                   |               |                                          |          | Flags: SCR: 113 / CAR:F / CAT:D / DEF:    |                 |
|                   |               |                                          | COMMENT: |                                           |                 |

| Var. Question No. | Variable Name | Variable Label                        | Code     | Option                                                    | Location/Format |
|-------------------|---------------|---------------------------------------|----------|-----------------------------------------------------------|-----------------|
| 114 BENCHMARK     | MSMIBM05      | MATH INTL BNCHMRK REACHED WITH 5TH PV | 1        | BELOW 475                                                 | 252 /C 1.0      |
|                   |               |                                       | 2        | AT OR ABOVE 475 BUT BELOW 550                             |                 |
|                   |               |                                       | 3        | AT OR ABOVE 550 BUT BELOW 625                             |                 |
|                   |               |                                       | 4        | AT OR ABOVE 625                                           |                 |
|                   |               |                                       | 9        | omitted                                                   |                 |
|                   |               |                                       | 8        | not admin.                                                |                 |
|                   |               |                                       |          | VLD: MSMIBM05\$'1#2#3#4#9#8'                              |                 |
|                   |               |                                       |          | Flags: SCR: 114 / CAR:F / CAT:D / DEF:                    |                 |
|                   |               |                                       | COMMENT: |                                                           |                 |
| 115 D:AGE         | MSDAGE        | AGE OF STUDENT                        | VALUE    | MSDAGE DERI                                               | 253- 257/N 5.2  |
|                   |               |                                       | 99       | omitted                                                   |                 |
|                   |               |                                       | 98       | not admin.                                                |                 |
|                   |               |                                       |          | VLD: (MSDAGE>=8.AND.MSDAGE<=30).OR.MSDAGE=99.OR.MSDAGE=98 |                 |
|                   |               |                                       |          | Flags: SCR: 115 / CAR:F / CAT:DERI / DEF:                 |                 |
|                   |               |                                       | COMMENT: |                                                           |                 |
| 116 DATE          | DPCDATE       | FILE CREATION DATE AT DPC HAMBURG     | VALUE    | DPCDATE PROC                                              | 258- 265/N 8.0  |
|                   |               |                                       | 9999999  | omitted                                                   |                 |
|                   |               |                                       | 9999999  | not admin.                                                |                 |
|                   |               |                                       |          | VLD: .T.                                                  |                 |
|                   |               |                                       |          | Flags: SCR: 116 / CAR:F / CAT:PROC / DEF:                 |                 |
|                   |               |                                       | COMMENT: |                                                           |                 |