## Appendix 10F: Derived Items in TIMSS 2019

## Grade 4 Mathematics

M01_01-ME51043: Item parts A, B, C, D, E, F, G, and H are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M01_05 - ME51508: Item parts A and B are combined to create a 1-point item, where 1 score point is awarded if both parts are correct

M02_03-ME71167: Item parts A, B, C, D, E, and F are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

M02_05 - ME71162, MP71162: Item parts A and B are combined to create a 2-point item, where 2 score points are awarded if both parts are correct and 1 score point is awarded if 1 part is correct
M02_06 - ME71078: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

M02_08-ME71151, MP71151: Item parts A, B, and C are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 2 parts are correct
M02_11 - ME71142: Item parts $A$ and $B$ are combined to create a 1-point item, where 1 score point is awarded if both parts are correct
M02_12 - ME71204, MP71024: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M04_03 - ME71036, MP71036: Item parts A and B are combined to create a 1-point item, where 1 score point is awarded if both parts are correct

M04_09 - ME71178, MP71178: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

M04_12 - ME71175, MP71175: Item parts A, B, and C are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 1 or 2 are correct
M06_01-ME61018, MP61018: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

M06_10-ME61266: Item parts A, B, C, D, E, and F are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 5 parts are correct
M08_11 - ME71141, M08_10 - MP71141: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M08_12 - ME71194: Item parts A and B are combined to create a 1-point item, where 1 score point is awarded if both parts are correct
M08_13 - ME71193, M08_12 - MP71193: Item parts A and B are combined to create a 2-point item, where 2 score points are awarded if both are correct and 1 score point is awarded if 1 part is correct
M10_05-ME71213: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

M10_08-ME71179, MP71179: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M10_12A - ME71187A: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

## Grade 4 Mathematics (continued)

M11_08-ME61095: Item parts B, C, D, and E are combined to create a 1-point item, where 1 score point is awarded if all parts are correct (part A is an example)
M12_04A - ME71216A, MP71216A: Item parts $A$ and $B$ are combined to create a 1-point item, where 1 score point is awarded if both parts are correct

M12_05-ME71117: Item parts A, B, C, D, and E are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M12_10 - ME71202: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M13_01 - ME61240, MP61240: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M13_02 - ME61254: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M14_11A - ME71138A, MP71128A: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

M14_13 - ME71205, MP71205: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
Items beginning with "ME" are eTIMSS items. Items beginning with "MP" are paperTIMSS items, or bridge items. paperTIMSS trend items deleted or recoded for all countries were also derived for eTIMSS bridge samples.

## Grade 4 Mathematics - Less Difficult

MN04_14-MN21003: Item parts A, B, C, and D are combined to create a 2-point item, where 2 score points are awarded if all parts correct and 1 score point is awarded if 3 parts are correct
MN14_10 - MN21057: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

MP02_05-MP71162: Item parts A and B are combined to create a 2-point item, where 2 score points are awarded if both parts are correct and 1 score point is awarded if 1 part is correct

MP02_08 - MP71151: Item parts A, B, and C are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 2 parts are correct
MP02_12 - MP71024: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

MP08_10 - MP71141: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
MP08_12 - MP71193: Item parts A and B are combined to create a 2-point item, where 2 score points are awarded if both are correct and 1 score point is awarded if 1 part is correct

MP13_01 - MP61240: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

Items beginning with "MP" are items shared with the regular fourth grade mathematics assessment. Items beginning with "MN" are items unique to less difficult mathematics.

## Grade 4 Science

S02_03-SE71017, SP71017: Item parts A, B, C, D, and E are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
S04_02-SE71902, SP71902: Item parts B, C, D, and E are combined to create a 1-point item, where 1 score point is awarded if all parts are correct (part A is an example)

S04_04-SE71041, SP71041: Item parts A and B are combined to create a 2-point item, where 2 score points are awarded if both parts are correct and 1 score point is awarded if 1 part is correct
S04_05-SE71046, SP71046: Item parts A, B, C, D, and E are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
S05_10-SE51151: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S06_06 - SE61083, SP61083: Item parts B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct (part A is an example)
S06_09A - SE61142A, SP61142A: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S07_03 - SE51138Z, SP51138Z: Item parts A and B are combined to create a 1-point item, where 1 score point is awarded if both parts are correct (part C was deleted)
S09_08-SE61160: Item parts B, C, D, E, and F are combined to create a 1-point item, where 1 score point is awarded if all parts are correct (part A is an example)
S10_01 - SE71009, SP71009: Item parts A, B, C, D, E, and F are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 4 or 5 parts are correct

S10_09 - SE71106, SP71006: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
S10_13-SE71254: Item parts A, B, C, D, E, F, G, and H are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S13_11-SE61124, SP61124: Item parts B, C, D, and E are combined to create a 1-point item, where 1 score point is awarded if all parts are correct (part $A$ is an example)
S13_12 - SE61116, SP61116: Item parts B, C, D, and E are combined to create a 1-point item, where 1 score point is awarded if all parts are correct (part A is an example)

S14_01 - SE71063: Item parts A, B, C, D, E, and F are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S14_08-SE71114: Item parts A, B, C, D, E, and F are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

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## Grade 8 Mathematics

M02_01 - ME72007, MP72007: Item parts A, B, C, D, and E are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 4 parts are correct
M02_11 - ME72180: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

M02_12-ME72198, MP72198: Item parts A and B are combined to create a 1-point item, where 1 score point is awarded if both parts are correct
M02_14-ME72170: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M03_10 - ME62244: Item parts A and B are combined to create a 1-point item, where 1 score point is awarded if both parts are correct

M04_01-ME72178: Item parts A, B, C, D, and E are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M04_03-ME72020: Item parts A, B, C, and D are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 3 parts are correct

M04_05-ME72052, MP72052: Item parts A and B are combined to create a 1-point item, where 1 score point is awarded if both parts are correct
M04_11-ME72164, MP72164: Item parts A, B, C, D, and E are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M05_12-ME52502: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

M06_10 - ME62288: Item parts A and B are combined to create a 2-point item, where 2 score points are awarded if both parts are correct and 1 score point is awarded if 1 part is correct

M07_08 - ME52087: Item parts A and B are combined to create a 2-point item, where 2 score points are awarded if both parts are correct and 1 score point is awarded if 1 part is correct

M08_04-ME72055: Item parts A, B, C, D, E, and F are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M09_06-ME62317: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

M09_12A - ME62345A: Item parts A, B, C, and D are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 2 or 3 parts are correct
M10_09 - ME72095, MP72095: Item parts A and B are combined to create a 1-point item, where 1 score point is awarded if both parts are correct,
M10_14 - ME72232, MP72232: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M11_03 - ME62215: Item parts A and B are combined to create a 2-point item, where 2 score points are awarded if both are correct and 1 score point is awarded if 1 part is correct
M12_08 - ME72225, MP72225: Item parts A and B are combined to create a 1-point item, where 1 score point is awarded if both parts are correct

M13_09 - ME62170: Item parts A and B are combined to create a 2-point item, where 2 score points are awarded if both parts are correct and 1 score point is awarded if 1 part is correct

## Grade 8 Mathematics (continued)

M14_09-ME72081: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
M14_10 - ME72140, MP72140: Item parts A, B, C, D, E, and F are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

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## Grade 8 Science

S01_05 - SE52095Z, SP52095Z: Item parts B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct (part A is an example)
S02_08-SE72130, SP72130: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S02_11 - SE72232, SP72232: Item parts A, B, C, D, E, and F are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S04_02-SE72403: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S04_13-SE72345, SP72345: Item parts A, B, C, D, E, F, and G are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 5 or 6 parts are correct

S06_13A - SE62173A, SP62173A: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
S07_05-SE52015Z, SP52015Z: Item parts A, B, C, D, E, and F are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S08_02 - SE72400: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
S08_13-SE72260: Item parts A, B, C, D, E, F, and G are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S08_14-SE72265, SP72265: Item parts A, B, C, D, and E are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S09_08-SE62018, SP62018: Item parts A, B, C, D, and E are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 4 parts are correct
S10_01 - SE72033: Item parts A, B, C, D, and E are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 4 parts are correct

S10_05-SE72086: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
S10_13-SE72261, SP72261: Item parts A, B, C, D, and E are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S11_06 - SE62006: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S11_15 - SE62242, SP62242: Item parts A, B, D, and E are combined to create a 1-point item, where 1 score point is awarded if all parts are correct (part C was deleted)

## Grade 8 Science (continued)

S12_03-SE72000: Item parts A, B, C, D, and E are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 4 parts are correct
S12_08 - SE72143: Item parts $A, B, C$, and $D$ are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S13_04-SE62101: Item parts A, B, C, and D are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 2 or 3 parts are correct
S13_07-SE62047, SP62047: Item parts A, B, and C are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
S13_08 - SE62042: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct

S13_14-SE62022, SP62022: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
S13_15-SE62243: Item parts A, B, C, and D are combined to create a 2-point item, where 2 score points are awarded if all parts are correct and 1 score point is awarded if 2 or 3 parts are correct

S14_02-SE72905: Item parts A, B, C, and D are combined to create a 1-point item, where 1 score point is awarded if all parts are correct
S14_04-SE72016, SP72016: Item parts A and B are combined to create a 2-point item, where 2 score points are awarded if both are correct and 1 score point is awarded if 1 part is correct
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