

ANNUAL NATIONAL ASSESSMENT 2013 GRADE 5 MATHEMATICS MEMORANDUM

MARKS: 60

This memorandum consists of 3 pages.

Important information:

- 1. Give full marks for answers only, unless otherwise stated.
- 2. Accept any alternative correct solution that is not included in the memorandum.
- 3. CA refers to consistent accuracy. See clarification in question 8.1

| Que | stion | Expected Answer | Clarification | Mark allocation | Total |
|-----|-------|--|---|-----------------|-------|
| 1. | 1.1 | В ✓ | | 1 | |
| | 1.2 | D✓ | | 1 | 1 |
| | 1.3 | C ✓ | | 1 | 1 |
| | 1.4 | В ✓ | | 1 | |
| | 1.5 | C ✓ | | 1 | 1 |
| | 1.6 | В ✓ | | 1 | |
| | 1.7 | A ✓ | | 1 | _ |
| | 1.8 | В ✓ | | 1 | 8 |
| 2. | 2.1 | 33 755 ✓ | | 1 | |
| | 2.2 | 100 000 ✓ | | 1 | 2 |
| 3. | | 200 000 or 2 Hundred Thousand or 2HTh ✓ | | 1 | 1 |
| 4. | | <√ | | 1 | 1 |
| 5. | | 9 🗸 | | 1 | 1 |
| 6. | | 19 ✓ | (Rule 3 = 2 × 1 + 1 5 = 2 × 2 + 1, 7 = 2 × 3 + 1) 19 = 2 × 9 + 1 | 1 | |
| | | 25 ✓ | $25 = (51-1) \div 2$ | 1 | 2 |
| 7. | 7.1 | True ✓ | , | 1 1 | |
| | 7.3 | False ✓ | | 1 | 3 |
| 8. | 8.1 | True ✓ 11 523 | | 1 | 3 |
| | | $ \begin{array}{c} 21\ 275 \\ +\ 7\ 356 \\ \hline 40\ 154 \end{array} $ or $ \begin{array}{c} 11\ 523 = 10\ 000 + 1\ 000 + 500 + 20 + 3 \\ 21\ 275 = 20\ 000 + 1\ 000 + 200 + 70 + 5 \\ +\ 7\ 356 & 7\ 000 + 300 + 50 + 6 \\ \hline Sum = 40\ 000 + 1\ 000 + 50 + 4 \\ = 40\ 154 \end{array} $ or $ \begin{array}{c} 10\ 000 + 1\ 000 + 500 + 20 + 3 + 20\ 000 + 1\ 000 + 200 + 70 + 5 + 7\ 000 + 300 + 50 + 6 \\ = 10\ 000 + 20\ 000 + 1\ 000 + 1\ 000 + 7\ 000 + 500 + 200 + 300 + 20 + 70 + 50 + 3 + 5 + 6 \end{aligned} $ $ \begin{array}{c} 40\ 000 + 100 + 50 + 4 \\ = 40\ 000 + 100 + 50 + 4 \end{array} $ $ \begin{array}{c} 40\ 154 \end{array} $ | Arrangement of values: 1 mark Correct answer: 1 mark 11 523 21 275 X + 7 356 106 358 ✓ 1 mark for CA | 2 | |
| | 8.2 | 69 157 -17 239 51 918 ✓ | Arrangement of values: 1 mark Correct answer: 1 mark | 2 | |
| | 1 | | IIIair | | 1 |

| | | or | Apply CA | | |
|-----|-----|--|------------------------|---|----|
| | | 69 157 = 60 000 + 9 000 + 100 + 50 + 7 | , 4P.) 5 | | |
| | | $\frac{17239}{10000} = \frac{10000}{1000} + \frac{7000}{1000} + \frac{200}{1000} + \frac{30}{1000} + \frac{9}{1000}$ | | | |
| | | Difference = 50 000 +1 000 + 900 + 10 + 8 | | | |
| | | = <u>51 918</u> ✓ | | | |
| | | | | | |
| | | or | | | |
| | | 00 000 + 0 000 + 400 + 50 + 7 + 40 000 7 000 000 | | | |
| | | 60 000 + 9 000 + 100 + 50 + 7 - 10 000 - 7 000 - 200 - 30 - 9 | | | |
| | | = 60 000 - 10 000 + 8 000 - 7 000 + 11 00 - 200 + 40 - | | | |
| | | 30 + 17 - 9 | | | |
| | | = 50 000 + 1 000 + 900 + 10 + 8 | | | |
| | | = 51 918 √ | | | |
| | 8.3 | 976 or 976 × 54 or 976 × (50+ 4)√ | A mark for each | | |
| | | \times <u>54</u> = 976 × 9 × 6 ✓ = (976 × 50) + (976 × 4) | | | |
| | | 3 904 ✓ = 8 784 × 6 = 48 800 + 3 904 ✓ | for the correct | | |
| | | $+ 48800 \checkmark = 52704 \checkmark = 52704 \checkmark$ | answer. | | |
| | | <u>52 704</u> ✓ | Apply CA | | |
| | 0.4 | | Apply CA | 3 | |
| | 8.4 | | Correct quotient: 1 | | |
| | | ✓ 8 1 rem 8✓ | mark | | |
| | | | Correct calculation: | | |
| | | | 1 mark | | |
| | | <u>-7 2</u> 1 7 ✓ | Correct remainder: 1 | | |
| | | - 9 | mark | | |
| | | 8 | | | |
| | | | A | | |
| | | or | Apply CA | | |
| | | | | | |
| | | $737 \div 9 = (720 + 17) \div 9$ | | | |
| | | $= (720 \div 9) + (17 \div 9) \checkmark$ | | | |
| | | = 80 + 1 rem 8 = 81 \(\sigma \) rem 8 \(\sigma \) | | | |
| | | = 814 16111 8 4 | | 3 | |
| | 8.5 | | Answer only, give | 3 | |
| | 0.0 | | full marks | | |
| | | $6\frac{1}{7} + 2\frac{2}{7} = 8 + \frac{1}{7} + \frac{2}{7} = 8\frac{3}{7}$ | | 2 | |
| | | | | | |
| | | | | | |
| | 8.6 | | Whole number: 1 | | |
| | | $3\frac{3}{5} - 1\frac{1}{5} = 2\frac{2}{5}$ | mark | | |
| | | 5 5 5 | Common fraction: 1 | | |
| | | | mark Answer only: full | | ,, |
| | | | mark | | 14 |
| | | | | 2 | |
| 9. | | 4 | | 1 | 1 |
| 10 | | | Accept any | _ | |
| | | | quadrilateral | 2 | 2 |
| 11. | | | Correct operation: 1 | | |
| | | The amount / hour = R4 200 ÷ 60 = R420 ÷ 6 = R70 ✓✓ | mark | | |
| | | 1112 201 30 11120 3 1110 | Correct answer: 1 | 2 | 2 |
| | | | mark | | |
| | | √ √ | Correct operation: 1 | | |
| 12. | | 20 500 – (2 341 + 578 + 10 690) = or x | mark | | |
| | | | Correct answer: 1 | | |
| | | or | mark | | |
| | | $20\ 500\ - 2\ 341\ - 578\ - 10\ 690\ = \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ | | 2 | 2 |
| | | | 1 | | |

| 14. 5 ✓ Triangles ✓ and a square ✓ 15. | | 3 1 |
|---|-----------------------------|-------|
| 15. 16. 7.10 p.m. or ten past seven in the evening ✓ 17. 38 min to 41 min = 3 min 10 sec to 15 sec = 5 sec The time difference = 3 min ✓ 5 sec ✓ 18. 3ℓ ✓ and 460 mℓ✓ 19. 19.1 19 °C ✓ 19.2 15 °C ✓ | 1 lise if | 1 |
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| 17. 38 min to 41 min = 3 min 10 sec to 15 sec = 5 sec The time difference = 3 min \checkmark 5 sec \checkmark 18. 3 ℓ \checkmark and 460 m ℓ \checkmark 19. 19.1 19 $^{\circ}$ C \checkmark 19.2 15 $^{\circ}$ C \checkmark | 1 lise if | 1 |
| 17. 38 min to 41 min = 3 min 10 sec to 15 sec = 5 sec The time difference = 3 min \checkmark 5 sec \checkmark 18. 3 ℓ \checkmark and 460 m ℓ \checkmark 19. 19.1 19 $^{\circ}$ C \checkmark 19.2 15 $^{\circ}$ C \checkmark | lise if | |
| 10 sec to 15 sec = 5 sec The time difference = $3 \min \checkmark 5 \text{ sec} \checkmark$ 18. 3 $\ell \checkmark \text{and } 460 \text{ m} \ell \checkmark$ 19. 19.1 19 °C \checkmark 19.2 15 °C \checkmark | | |
| 19. | 2 | 2 |
| 19.2 15 °C ✓ | 2 | 2 |
| | 1 | |
| 20. 20.1 Wednesday✓ | 1 | 2 |
| | 1 | |
| 20.2 | 2 | |
| 20.3 45 🗸 | | |
| 20.4 The cost of juice = 30 x R2,00 ✓ = R60.00 ✓ Identifying cooperation: 1 Correct produmark (do not penal statement is given) | mark luct: 1 alise if | |
| Apply CA 21. 36 rectangles ✓✓ If the learner | 2 | 6 |
| answer is an number from 35, give 1 m | ny n 18 to | 2 |
| | | L: 60 |