Province of the
EASTERN CAPE
EDUCATION

MATHEMATICS
GRADE 8
ASSIGNMENT
FEBRUARY 2026

MARKS :50

DATE :_____

Instructions:

- Answer all questions in your notebook.
- Show all calculations clearly.
- Marks will be awarded for correct answers and appropriate working out

SECTION A: WHOLE NUMBERS   **(30 Marks)**

QUESTION 1

Properties of Whole Numbers   (4 Marks)

   (a) Identify whether the following properties are **commutative, associative, or distributive:**

    i. $5 \times 13 = 13 \times 5$ (1)

    ii. $10 \times (3 + 4) = (10 \times 3) + (10 \times 4)$ (1)

   (b) Write down the **multiplicative inverse and** of $\frac{2}{3}$.   (1)

   (c) What is the LCM of 8 and 12?   (1)

   (d) Use the column method to calculate the following:

    i. $2331 + 58\ 554 + 26\ 777$ (2)

    ii. 3251×34 (3)

QUESTION 2

Calculations Using Whole Numbers   (6 Marks)
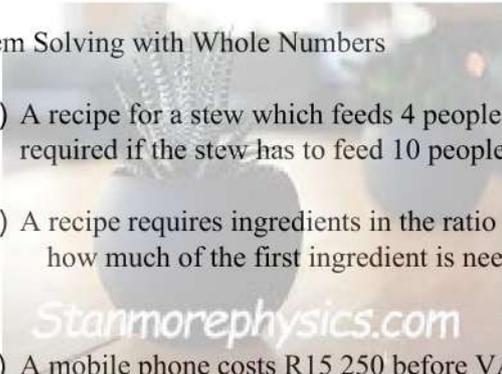
   (a) Find the prime factorisation of 1800.   (2)

   (b) Calculate: $512 \div (2 \times 8)$ (2)

   (c) The sum of three consecutive whole numbers is 75. Find the numbers.   (2)

QUESTION 3

Problem Solving with Whole Numbers   (9 Marks)

   (a) A recipe for a stew which feeds 4 people requires 6 carrots. How many carrots would be required if the stew has to feed 10 people?   (2)

   (b) A recipe requires ingredients in the ratio 3:2:5. If you have 80g of the ingredients, how much of the first ingredient is needed?   (2)

   (c) A mobile phone costs R15 250 before VAT. If VAT is 15%, calculate the total cost of the phone including VAT.   (3)

   (d) Convert 200 USD to ZAR if the exchange rate is 1 USD = 18.50 ZAR.   (2)

QUESTION 4

Increasing and Decreasing in Ratio

                                                                    (6 Marks)

   (a) increase 35000 in the ratio 3: 5   (3)

   (b) A car's price was R 3 330 000 but decreased in the ratio 4:3. Find the new price.   (3)

SECTION B: INTEGERS (20 Marks)

QUESTION 5

Calculations with Integers (10 Marks)

(a) Simplify: $- 12 + 16 - (-7)$ (2)

(b) Calculate: $(-8) \times (-3) + 7^2$ (2)

(c) Find the value of: $125^{\frac{1}{3}} + 100^0$ (2)

(d) Simplify: $(-27) \div (-3) + (-24) \div 4$ (2)

(e) Find the cube root of -1000. (2)

QUESTION 7

Problem Solving with Integers (10 Marks)

(a) A submarine is 100m below sea level. It rises by 45m and then dives 20m. What is its new depth? (3)

(b) The temperature in a city is -9°C at night. By noon, it increases by 12°C but drops by 7°C in the evening. What is the final temperature? (3)

(c) A company recorded a loss of R8,500 in January, followed by a gain of R15,000 in February and a loss of R6,900 in March. What is the total profit or loss after three months? (4)

TOTAL 50 Marks

Province of the
EASTERN CAPE
EDUCATION

ANW DISTRICT

**MATHEMATICS
GRADE 8
ASSIGNMENT MARKING GUIDE
FEBRUARY 2026**

MARKS :50

DATE :_____

Instructions:

- ❖ Go through the memo before you start marking
- ❖ Write your marking notes
- ❖ Then mark according to the marking guide

QUESTION 1 [9 marks]

(a)

   I.   Commutative ✔   (1)

   II.   Distributive ✔   (1)

(b) $\frac{3}{2}$ ✔   (1)

(c) 8 : 8 ; 16; 24; 32
    12: 12; 24; 36
∴ LCM is 24 ✔   (1)

(d)

   I.

$$\begin{array}{r} 2331 \\ 58554 \\ +26777 \\ \hline = 87662 \end{array}$$

method ✔   = 87662 ✔   (2)

   II.

$$\begin{array}{r} 3251 \\ \times\ 34 \\ \hline =110534 \end{array}$$

method ✔   =110534 ✔ ✔   (3)

QUESTION 2 [6 Marks]

a)

$$\begin{array}{r|l} 1800 & 2 \\ 900 & 2 \\ 450 & 2 \\ 225 & 3 \\ 75 & 3 \\ 25 & 5 \\ 5 & 5 \\ 1 \end{array}$$
   method ✔

$1800 = 2 \times 2 \times 2 \times 3 \times 3 \times 5 \times 5$
$= 2^3 \times 3^2 \times 5^2$ ✔   (2)

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b)

$512 \div 2 \times 8$
$$= \frac{512}{2 \times 8}$$
$$= \frac{8 \times 8 \times 8}{2 \times 8}$$ ✔
$= 8 \times 4$
$= 32$ ✔   (2)

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c) Whole numbers

n
$n + 1$
$n + 2$

$n + n + 1 + n + 2 = 75$
$3n + 3 = 75$
$3n = 72$
$n = 24$ ✔

$\therefore n + 1 = 24 + 1 = 25$
$n + 2 = 24 + 2 = 26$

$\therefore 24; 25; 26$ ✔   (2)

QUESTION 3 [9 Marks]

(a) People : Carrots

4   6
10   P

$4 \times P = 10 \times 6$ ✔
$4P = 60$
$P = 15$ ✔   (2)

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b)

Total ratio $= 3 + 2 + 5$
$= 10$

1st ingredient $= 3/10$ ✔ $\times 80g$
$= 3 \times 8$
$= 24g$ ✔   (2)

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c.

Total cost = Phone cost + VAT
$= 15250 + (15250 \times 15/100)$ ✔ ✔
$= R17\ 537,50$ ✔

d) $200 \times 18,50$ ✔
     $= R3700,00$ ✔   (3)

                                                                                       (2)

QUESTION 4 [6 Marks]

a)

$35000 \times 5/3$ ✔

$= 58333,33$ ✔ ✔ (3)

b)

3330000 ✔ $\times ¾$ ✔

$= 2497500$ ✔ (3)

QUESTION 5 [10 Marks]

a)

$-12 + 16 - (-7)$

$= -12 + 16 + 7$ ✔

$= +11$ ✔ (2)

b)

$(-8)(-3) + 7^2$

$= +24 + 49$ ✔

$= 73$ ✔ (2)

c)

$125^{1/3} + 100^0$

$= (5^3)^{1/3} + 1$ ✔

$= 5 + 1$

$= +6$ ✔ (2)

d)

$(-27) \div (-3) + (-24) \div (+4)$

$= +9 + (-6)$

$= +9 - 6$ ✔

$= +3$ ✔ (2)

e)

$\sqrt[3]{-1000}$

$= (-10)^{3 \times 1/3}$ ✔

$= -10$ ✔ (2)

QUESTION 7 [10 Marks]

a)

$a = -100 + 45 – 20$ ✔ ✔

$= -75\ m$ ✔ (3)

75 m below the sea level

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b)

$-9°C + 12°C - 7°C$ ✔ ✔

$= -4°C$ ✔ (3)

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c)

$-R8500 + R15000$ ✔ $- R6900$ ✔

$= -R400$ ✔

Total loss $= R400.$ ✔ (4)