

Topic Test 1 (20 minutes)

Basic algebra - Foundation

1 Work out the value of $35 - 3 \times 9$

[1 mark]

Answer _____

2 Insert brackets to make the calculation correct $100 - 4 + 3^2 = 51$

[1 mark]

Answer _____

3 Put these in order of size, starting with the smallest.

You **must** show your working.

[3 marks]

$$3 + 6^2 - 10 \quad 20 - (2 + 3)^2 \quad 15 - 54 \div 3^3$$

Answer _____

4 (a) Simplify $a + a + a + a + a + a$

[1 mark]

Answer _____

4 (b) Simplify $7 \times b \times c$

[1 mark]

Answer _____

4 (c) Simplify $12 \times d \times d \times d$

[1 mark]

Answer _____

4 (d) Write as a single fraction in its simplest form $(5 \times m \times m) \div (8 \times n)$

[1 mark]

Answer _____

4 (e) Write as a single fraction in its simplest form $(4 \times n \times n \times 5) \div (2 \times m \times 7)$

[2 marks]

Answer _____

5 Circle the expression that describes 20 more than x .

[1 mark]

$20 > x$

$x + 20$

$20x$

$x - 20$

6 1 kilogram of bananas costs 87p

Write down an expression for the cost of b kilograms of bananas.

[1 mark]

Answer _____ pence

7 Which of these can be written as $16a^2b$?
Circle all the possible answers.

[2 marks]

$2 \times 8 \times a \times a \times b$

$2 \times a \times a + 8 \times b$

$32 \times a \times a \times a \div (2 \times a \times b)$

$32 \times a \times a \times a \div (2 \times a) \times b$

8 Carys has just had a birthday.
She is now A years old.
Her brother, Joshua is 2 years younger.
Her sister, Kiah, is twice as old as Joshua.

Write down an expression for their total age.

[3 marks]

Answer _____

END OF QUESTIONS