GCSE FOUNDATION · REVISION MAT 4

Algebraic notation

1 Write these in a simpler way.

(a) $y + y + y + y$

(b) $3 \times y \times m$

(c) $m \times m \times m$

2 Write down whether each one is an **expression**, an **equation**, a **formula** or an **identity**.

(a) $6t - 5$

(b) $C = \pi d$

(c) $\frac{x}{2} = 7$

(d) $4(y + 3) \equiv 4y + 12$

3 Di says,

"$4x$ and x^4 mean the same thing."

Explain why Di is wrong.

4 Which of these are the same as $10p$?

$5 \times 2p$, $10 + p$, $7p + 3p$, $p \times 10$, $2p \times 5$

Explain how you decide.

5 A rectangle has length $5m$ and width $2n$.

(a) Write an expression for its perimeter.

(b) Write an expression for its area.

(c) Work out the area when $m = 1$ and $n = 3$.

6 The three cards add up to

$12p + 3q$. $5p - q$? $4p$

Work out the expression on the missing card.

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1 (a) **$4y$**

(b) **$3ym$**

(c) **m^3**

2 (a) **expression**

(b) **formula**

(c) **equation**

(d) **identity**

3 $4x$ and x^4 are different. Try $x = 3$: $4 \times 3 = 12$, but $3^4 = 81$

Not the same

ANSWERS · REVISION MAT 4

Algebraic notation

4 **$5 \times 2p$, $7p + 3p$, $p \times 10$, $2p \times 5$**

Each simplifies to $10p$.

5 (a) **$10m + 4n$**

(b) **$10mn$**

(c) **30**

6 $12p + 3q - (5p - q) - (4p)$

$= 3p + 4q$

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