GCSE FOUNDATION · REVISION MAT 2

Laws of indices

1 Simplify

(a) $y^5 \times y^2$

(b) $y^8 \div y^3$

2 Simplify

(a) $(y^4)^3$

(b) $2y^3 \times 5y^4$

3 Gil says,

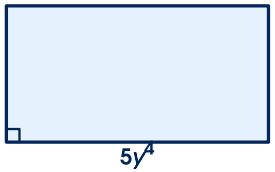
"$y^2 \times y^5 = y^{10}$"

Explain the mistake Gil has made.

4 Show that

$20y^8c \div 5y^3c = 4y^5$

5 A rectangle has area $30y^9$ cm^2. Its length is $5y^4$ cm.



Find an expression for the width.

6 Find the value of n.

$y^n \times y^4 = y^{11} \div y$

Mr&Mrs MATHS

ANSWERS · REVISION MAT 2

Laws of indices

1 (a) y^7

(b) y^5

2 (a) y^{12}

(b) $10y^7$

3 When you multiply, you **add** the powers, not multiply them.

$y^2 \times y^5 = y^7$

4 $20 \div 5 = 4$

$y^8 \div y^3 = y^5$

$c \div c = 1$ ✓

5 $30y^9 \div 5y^4$

$= 6y^5$

6 $y^{11} \div y = y^{10}$

$n + 4 = 10$

$n = 6$

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