GCSE HIGHER · REVISION MAT 3

Order of operations and inverse operations

1 Work out

$$(4 + 6) \times 3 - 5$$

2 Work out

$$\sqrt{16 + 9} \times 2$$

3 Explain why $2^3 + 1$ is not the same as 2^{3+1}.

4 Ella adds 5 to a number and multiplies by 4.

The answer is 52.

What was the number?

5 Use an inverse operation to check that

$$47 \times 23 = 1081$$

6 Use each of 1, 2, 3 and 4 once, with any operations and brackets, to make 25.

7 Show that

$$\frac{12 - 2 \times 3}{(1 + 2)^2 - 7} = 3$$

8 Use each of 1, 3, 4 and 6 once, with any operations and brackets, to make 24.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

Order of operations and inverse operations

1 $30 - 5$

25

2 $\sqrt{25} \times 2$

10

3 $2^3 + 1 = 9$

$2^4 = 16$: the power is worked out before adding.

4 $52 \div 4 = 13$

$13 - 5 = 8$

5 $1081 \div 23 = 47$ ✓

Correct

6 **e.g. $(1 + 4) \times (2 + 3) = 25$**

7 $\frac{12 - 6}{9 - 7} = \frac{6}{2}$

$= 3$

8 $1 - \frac{3}{4} = \frac{1}{4}$

$6 \div (1 - \frac{3}{4}) = 24$

Mr&Mrs MATHS