GCSE FOUNDATION · REVISION MAT 4

Order of operations and inverses

1 Work out

(a) $40 \div 5 - 3$

(b) $2 \times (9 - 4)^2$

2 Put brackets into this calculation to make it correct.

$20 \div 4 + 1 = 4$

3 Erin says,

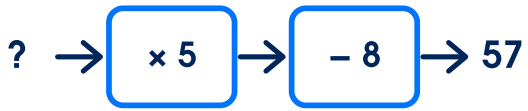
"$24 \div 4 + 2 = 4$"

Explain the mistake Erin has made.

4 Show that

$2 \times 3^2 + 20 \div 4 = 23$

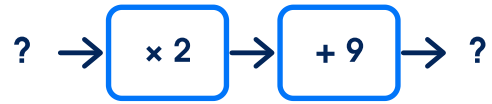
5 Here is a number machine.



The output is 57.

Work out the input.

6 Here is a number machine.



Amy puts a number in. Her output is 31.

Ben puts in a number that is 4 more than Amy's number.

Work out Ben's output.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 4

Order of operations and inverses

1 (a) **5**

(b) **50**

2 **20 ÷ (4 + 1) = 4**

3 Erin did the operations in the wrong order. × and ÷ come before + and −.

24 ÷ 4 + 2 = **8**

4 2 × 9 + 5 = 18 + 5

= 23 ✓

5 Work backwards using inverse operations:

57 + 8 = 65

65 ÷ 5 = 13

Input = **13**

6 Amy's input: (31 − 9) ÷ 2 = 11

Ben's input: 15

Ben's output: 15 × 2 + 9 = **39**