GCSE FOUNDATION · REVISION MAT 5

Order of operations and inverses

1 Work out

(a) $6 + 10 \div 2$

(b) $(3 + 4)^2 - 9$

2 Put brackets into this calculation to make it correct.

$9 - 3 \times 2 = 12$

3 Femi says,

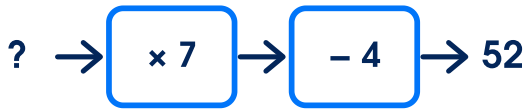
"$3 \times 5 - 1 = 12$"

Explain the mistake Femi has made.

4 Show that

$\sqrt{49} + 5 \times (8 - 6) = 17$

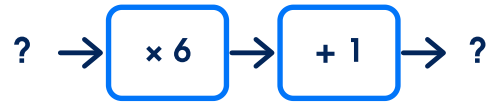
5 Here is a number machine.



The output is 52.

Work out the input.

6 Here is a number machine.



Amy puts a number in. Her output is 55.

Ben puts in a number that is 2 more than Amy's number.

Work out Ben's output.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 5

Order of operations and inverses

1 (a) **11**

(b) **40**

2 **(9 – 3) × 2 = 12**

3 Femi did the operations in the wrong order. × and ÷ come before + and –.

3 × 5 – 1 = **14**

4 7 + 5 × 2 = 7 + 10

= 17 ✓

5 Work backwards using inverse operations:

52 + 4 = 56

56 ÷ 7 = 8

Input = **8**

6 Amy's input: (55 – 1) ÷ 6 = 9

Ben's input: 11

Ben's output: 11 × 6 + 1 = **67**

Mr&Mrs MATHS