GCSE HIGHER · REVISION MAT 3

Simplifying ratios

1 Simplify

$18 : 27 : 45$

2 Simplify

$2.5 : 10$

3 Explain why 30 minutes : 2 hours is 1 : 4, not 30 : 2.

4 Sam saves £45, Jo saves £75 and Kim saves £30.

Write their savings as a ratio in its simplest form.

5 Write 12 : 5 in the form 1 : n.

6 Find the ratio of the perimeter of a 6 cm square to the perimeter of a 4 cm by 5 cm rectangle.

7 Simplify

$$\frac{5}{6} : \frac{5}{9}$$

8 Simplify

$(x^2 - 9) : (2x + 6)$

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

Simplifying ratios

1 2 : 3 : 5

2 1 : 4

3 Use the same units: 30 : 120 = 1 : 4.

4 3 : 5 : 2

5 Divide by 12

$1 : \frac{5}{12}$ (1 : 0.417)

6 24 : 18

4 : 3

7 Multiply by 18: 15 : 10

3 : 2

8 $(x - 3)(x + 3) : 2(x + 3)$

$(x - 3) : 2$

Mr&Mrs MATHS