GCSE FOUNDATION · REVISION MAT 8

Mixed topics

1 Write 180 as a product of its prime factors.

2 Expand and simplify

$2(x + 6) + 5(x - 1)$

3 Amy and Ben share £84 in the ratio 4 : 3.

Ben says he gets £48.

Show that Ben is wrong.

4 Show that each interior angle of a regular hexagon is 120°.

5 Sam says the median of 44, 38, 51, 40, 47 is 51 because it is in the middle.

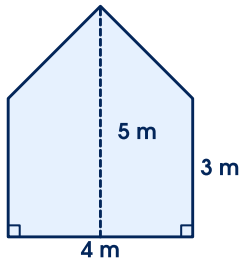
Explain why Sam is wrong.

6 A recipe for 8 people uses 360 g of flour.

Raj wants to make it for 20 people. He has 850 g of flour.

Does he have enough flour? Show your working.

7 The diagram shows a garden. All lengths are in metres.



Turf costs £20 per m^2. Work out the cost of turf for the garden.

8 Ali is x years old. Bea is 4 years older than Ali. Cal is 1 years younger than Ali.

Their ages add up to 45.

How old is each person?

ANSWERS · REVISION MAT 8

Mixed topics

1 $2^2 \times 3^2 \times 5$

2 $2x + 12 + 5x - 5$

$= \mathbf{7x + 7}$

3 1 part = £84 ÷ 7 = £12

Ben gets 3 × £12 = **£36**, not £48

4 Exterior angle = 360 ÷ 6 = 60°

Interior = 180 − 60 = **120°** ✓

5 The numbers must be in order first: 38, 40, 44, 47, 51

Median = **44**

6 360 ÷ 8 × 20 = 900 g

No, he needs 50 g more.

7 Area = $4 \times 3 + \frac{1}{2} \times 4 \times 2 = 16\ m^2$

Cost = 16 × £20 = **£320**

8 $x + (x + 4) + (x - 1) = 45$

$3x = 42$, so $x = 14$

Ali **14**, Bea **18**, Cal **13**