Y6 Proportion Problems

KS2 Y6 Maths · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

4 pens cost £1.20. How much do 7 pens cost?

Step 1 · Find 1 pen: £1.20 ÷ 4

30p

Step 2 · 7 pens: 7 × 30p

210p

Answer: £2.10

Check: 8 pens would be £2.40, so 7 is one pen less: £2.10 ✓

2. Now try one with the steps

A recipe for 6 people uses 450 g of pasta. How much is needed for 4 people?

Step 1 · 1 person: 450 ÷ 6

Step 2 · 4 people: 4 × 75

Answer:

3. Practice

Have a go at each one. There is space underneath to work it out.

1. 5 apples cost 90p. How much does 1 apple cost?

2. 3 notebooks cost £4.50. How much do 5 notebooks cost?

3. You need 6 eggs to make 2 cakes. How many cakes can you make with 15 eggs?

4. A recipe for 4 people uses 200 g of rice. How much rice is needed for 10 people?

5. 7 cinema tickets cost £56. How much do 4 tickets cost?

6. A tap drips 45 ml in 3 minutes. How much does it drip in 20 minutes?

7. A recipe for 6 people uses 300 ml of milk. How much milk is needed for 9 people?

8. A printer prints 40 pages in 5 minutes. How many minutes does it take to print 72 pages?

9. 12 tins weigh 4.8 kg altogether. How much do 5 tins weigh?

10. 3 m of fabric costs £13.50. How much do 7 m cost?

11. In a table, 2 → 14 and 5 → 35. Using the same rule, which number goes with 63?

12. Sam earns £45 for 6 hours of work. How much does he earn for 10 hours?

13. Which is better value: 5 pens for £2, or 8 pens for £3.36?

14. A recipe for 8 biscuits uses 120 g of flour. How much flour is needed for 20 biscuits?

15. A car uses 6 litres of petrol to travel 90 km. How far can it travel on 10 litres?

4. Before you hand it in

4 pens cost £1.20, so 7 pens cost £1.20 + 3 = £4.20.
Proportion means multiplying. Find 1 pen (30p), then multiply: 7 × 30p = £2.10.

A recipe for 6 uses 450 g, so for 4 it uses 450 – 2 = 448 g.

Find the amount for 1 person (75 g), then multiply by 4: 300 g.

Getting a much bigger answer for fewer items.

Ask: should the answer be bigger or smaller? Fewer items should cost less.