GCSE Maths: Proportion: the unitary method and best buy (Higher): answers

GCSE Maths - Ratio and Proportion - Higher - Lesson 15.7

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at **websink.site/gcse/maths/ch15-ratio-proportion/higher/proportion-the-unitary-method-and-best-buy/**

Exercise 15G Unitary method and best buy

Calculator allowed

1 Work out the cost.

(a) 4 pens cost £2.80. Find the cost of 7 pens.

Answer: £4.90

(b) 6 buns cost £4.50. Find the cost of 10 buns.

Answer: £7.50

(c) 5 kg of apples cost £12. Find the cost of 8 kg.

Answer: £19.20

(d) 12 eggs cost £3. Find the cost of 18 eggs.

Answer: £4.50

(e) 3 books cost £14.25. Find the cost of 5 books.

Answer: £23.75

(f) 8 metres of cloth cost £34. Find the cost of 5 metres.

Answer: £21.25

2 A car uses 6 litres of petrol to travel 90 km. How many litres does it need to travel 240 km?

Answer: 16 litres

3 Maya types 150 words in 3 minutes. How many words can she type in 8 minutes at the same speed?

Answer: 400 words

4 A printer prints 120 pages in 8 minutes. How long will it take to print 300 pages?

Answer: 20 minutes

5 Which is the better buy, A or B? Show your working.

(a) A: 500 g for £1.60. B: 750 g for £2.25.

Answer: B

(b) A: 2 kg of rice for £3.20. B: 5 kg of rice for £7.50.

Answer: B

(c) A: 1 litre of juice for £1.20. B: 1.5 litres for £1.65.

Answer: B

(d) A: 80 tea bags for £2.40. B: 240 tea bags for £6.60.

Answer: B

6 Cola is sold in a 6-pack of cans for £2.70 and in a 10-pack for £4.20. Which pack is better value for money?

Answer: the 10-pack

7 Coffee is sold in three sizes: A is 250 g for £1.20, B is 400 g for £1.80 and C is 1 kg for £4.20. Which size is the best value for money?

Answer: C

8 A shop sells a 200 g bar of chocolate for 90p and a 500 g bar for £2.50. Which bar gives you more chocolate for your money? How many grams of each do you get for £1?

Answer: the 200 g bar

9 Zain earns £17.50 for 7 hours of work. At the same rate of pay, how much does he earn in 12 hours?

Answer: £30

10 A recipe for 12 biscuits uses 90 g of butter. Butter costs £1.80 for a 250 g block. How much does the butter cost for 40 biscuits? (Work out the cost for the exact amount of butter.)

Answer: £2.16

11 Tickets for a concert are the same price each. 2 tickets cost £7. Complete the table: (a) the cost of 5 tickets, (b) the cost of 8 tickets, (c) the number of tickets that can be bought for £42.

Tickets	2	5	8	?
Cost	£7	?	?	£42

(a) Cost of 5 tickets

Answer: £17.50

(b) Cost of 8 tickets

Answer: £28

(c) Number of tickets for £42

Answer: 12

12 Large packs are always better value than small packs. Is this true? Use the prices in the previous question (200 g for 90p and 500 g for £2.50) to explain.

Answer: No: the small pack is cheaper per gram

13 Raj says: "5 notebooks cost £7.50, so 15 notebooks cost £7.50 + £10 = £17.50, because you buy 10 more." Explain his mistake and work out the correct cost.

Answer: £22.50

14 In a recipe, there are $\frac{3}{4}$ cup of flour for every $\frac{2}{3}$ cup of sugar. How much sugar is needed for $2\frac{1}{4}$ cups of flour?

Answer: 2 cups

15 **A shop sells pens in packs. Pack A has 6 pens for £2.10. Pack B has 10 pens for £3.20. Sara needs exactly 30 pens. What is the cheapest way to buy exactly 30 pens, and how much does it cost? Show how you decide.**

> **Answer:** 3 packs of 10 for £9.60

© Websink Prep UK. Free for classroom and home use; please do not resell. websink.site