

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

GCSE Maths - Ratio and Proportion - Foundation - 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/foundation/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 3 pencils cost 90p. Work out the cost of 5 pencils.

Answer: 150p

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

Answer: 16 litres

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

Answer: 400 words

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

Answer: 20 minutes

6 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

- 7 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

- 8 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

- 9 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

- 10 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

- 11 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

- 12 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

- 13 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

- 14 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

- 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

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