

Year 5: Sharing, grouping, scaling and rates: answers

Year 5 - Short Division and Remainders - Lesson 5.6

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at websink.site/ks2-sats/maths/year-5/ch05-division/sharing-grouping-scaling-and-rates/

Exercise 5F Sharing, grouping, scaling and rates Non-calculator

1 Work out each sharing problem.

- (a) 96 sweets are shared equally between 4 children. How many sweets does each child get?

Answer: 24 sweets

- (b) Ravi puts 415 stamps equally into 5 albums. How many stamps are in each album?

Answer: 83 stamps

- (c) A theatre has 1,368 seats in 6 equal sections. How many seats are in each section?

Answer: 228 seats

2 Work out each grouping problem.

- (a) 84 apples are put into bags of 7. How many bags are there?

Answer: 12 bags

- (b) A hall has 456 chairs. Each row has 8 chairs. How many rows are there?

Answer: 57 rows

- (c) A lorry carries 9 tonnes each trip. It must move 2,250 tonnes of sand. How many trips does it make?

Answer: 250 trips

3 Is each story sharing or grouping? Work out the answer.

- (a) 240 pencils are put into 8 equal pots. How many pencils go in each pot?

Answer: Sharing: 30 pencils in each pot

- (b) Mia has 135 stickers. She puts 5 stickers on each page. How many pages does she fill?

Answer: Grouping: 27 pages

- (c) A farmer has 672 eggs. He puts them into trays of 6. How many trays does he fill?

Answer: Grouping: 112 trays

4 Work out each answer. A bar model will help.

- (a) A tank holds 480 litres of water. A jug holds a sixth as much. How much does the jug hold?

Answer: 80 litres

- (b) A large bag has 640 g of flour. A small bag has an eighth as much. How much flour is in the small bag?

Answer: 80 g

- (c) A film lasts 156 minutes. A TV show is half as long. How long is the TV show?

Answer: 78 minutes

5 Work out how many times as big each amount is.

- (a) A tower is 72 m tall. A wall is 9 m tall. How many times as tall as the wall is the tower?

Answer: 8 times

- (b) A skyscraper is 360 m tall. A house is 9 m tall. How many times as tall as the house is the skyscraper?

Answer: 40 times

- (c) Mia saves £84. Tom saves £7. How many times as much has Mia saved as Tom?

Answer: 12 times

6 Work out the price of one item.

- (a) 8 pens cost £6. How much does 1 pen cost?

Answer: 75p

- (b) 5 notebooks cost £20. How much does 1 notebook cost?

Answer: £4

- (c) 6 apples cost £2.40. How much does 1 apple cost?

Answer: 40p

7 Use a rate table to work out each answer.

- (a) 24 sandwiches cost £60. How much do 6 sandwiches cost?

Answer: £15

- (b) 15 oranges cost £6. How much do 5 oranges cost?

Answer: £2

- (c) 36 stickers cost £9. How many stickers can you buy for £3?

Answer: 12

8 Find the price of one, then scale up.

- (a) 5 buns cost £2. How much do 8 buns cost?

Answer: £3.20

- (b) 6 pencils cost 90p. How much do 10 pencils cost?

Answer: £1.50

9 Work out each rate.

- (a) A train travels 540 km in 6 hours at a steady speed. How many km does it travel per hour?

Answer: 90 km per hour

- (b) A car uses 8 litres of petrol to travel 392 km. How many km does it travel per litre?

Answer: 49 km per litre

- (c) A machine makes 2,160 bolts in 9 minutes. How many bolts does it make per minute?

Answer: 240 bolts per minute

- (d) A tap fills a jug with 4,500 ml of water in 5 seconds. How many ml of water come out per second?

Answer: 900 ml per second

- 10 This table shows the cost of pens in a shop.

Pens	4	$\div 4 \rightarrow$	1	$\times 7 \rightarrow$	7
	£12	$\div 4 \rightarrow$	?	$\times 7 \rightarrow$	?

- (a) How much does 1 pen cost?

Answer: £3

- (b) How much do 7 pens cost?

Answer: £21

- 11 Which is the better value? Work out the price of one in each pack.

- (a) Pack A has 6 pencils for £1.50. Pack B has 8 pencils for £1.84.

Answer: Pack B

- (b) A box of 4 yoghurts costs £1.80. A box of 6 yoghurts costs £2.52.

Answer: Box of 6

- 12 A recipe uses 360 g of flour to make 24 biscuits. How much flour is needed to make 8 biscuits?

Answer: 120 g

- 13 6 cakes cost £9. Ben says, "So 3 cakes cost £18." What mistake has Ben made? How much do 3 cakes cost?

Answer: £4.50. Ben multiplied; he should have divided by 2.

- 14 Always, sometimes or never?

- (a)

When you divide a whole number by 2 or more, the whole-number answer is smaller than the number you started with.

Answer: Always

- (b) If you know the price of several items, the price of one is a whole number of pounds.

Answer: Sometimes

- 15 Challenge! A pack of 9 pens costs £6.75. A pack of 6 pencils costs £3.60. Which is cheaper, one pen or one pencil? How much cheaper?

Answer: A pencil is cheaper, by 15p