

GCSE Maths: Percentages of an amount (Foundation): answers

GCSE Maths - Percentages - Foundation - Lesson 5.2

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at websink.site/gcse/maths/ch05-percentages/foundation/percentages-of-an-amount/

Exercise 5B Percentages of an amount (non-calculator) Non-calculator

1 Work out each percentage. Do not use a calculator.

(a) 10% of 80

Answer: 8

(b) 20% of 150

Answer: 30

(c) 30% of 240

Answer: 72

(d) 50% of 64

Answer: 32

(e) 25% of 120

Answer: 30

(f) 5% of 200

Answer: 10

2 Find 10% of each amount.

(a) £50

Answer: £5

(b) 340 g

Answer: 34 g

(c) 8.5 m

Answer: 0.85 m

(d) 120 ml

Answer: 12 ml

3 Work out each amount of money.

(a) 15% of £360

Answer: £54

(b) 35% of £80

Answer: £28

(c) 75% of £48

Answer: £36

(d) 12% of £250

Answer: £30

(e) 2% of £450

Answer: £9

(f) 1% of £7,600

Answer: £76

4 Work out each measurement.

(a) 45% of 600 g

Answer: 270 g

(b) 90% of 30 m

Answer: 27 m

(c) 60% of 250 ml

Answer: 150 ml

(d) 8% of 400 kg

Answer: 32 kg

(e) 70% of 3 km

Answer: 2.1 km

(f) 15% of 90 minutes

Answer: 13.5 minutes

5 A coat costs £80. In a sale the price is reduced by 35%.

(a) Work out the reduction.

Answer: £28

(b) Work out the sale price.

Answer: £52

6 A school has 800 students. 45% of them are girls.

(a) How many girls are there?

Answer: 360

(b) How many boys are there?

Answer: 440

7 Sam earns £1,600 each month. He saves 15% of it.

- (a) How much does Sam save each month?

Answer: £240

- (b) How much does Sam save in a year?

Answer: £2,880

- 8 A bag has 240 sweets. 25% are red and 5% are green. How many sweets are **neither** red **nor** green?

Answer: 168

- 9 Which is bigger, 20% of 350 or 30% of 240? Show your working.

Answer: 30% of 240 (72 is more than 70)

- 10 Show that 20% of 60 is equal to 60% of 20.

Answer: Both are 12

- 11 Ali says, "To find 15% of 80 you divide 80 by 15." Explain why he is wrong, and find the correct answer.

Answer: 12

- 12 Without using a calculator, explain why 8% of 50 is equal to 50% of 8.

Answer: Both equal 4

Exercise 5C Percentages of an amount (calculator)

Calculator allowed

- 1 Use a calculator to work out each amount.

- (a) 12% of 650

Answer: 78

- (b) 35% of 840

Answer: 294

- (c) 7% of 1,250

Answer: 87.5

- (d) 18% of 2,400

Answer: 432

- (e) 4.5% of 360

Answer: 16.2

- (f) 62% of 85

Answer: 52.7

- 2 Use a calculator to find each percentage of 130.

- (a) 10% of 130

Answer: 13

(b) 25% of 130

Answer: 32.5

(c) 60% of 130

Answer: 78

(d) 90% of 130

Answer: 117

3 Work out each amount of money. Give your answers to the nearest penny.

(a) 17.5% of £84.60

Answer: £14.81

(b) 23% of £149.99

Answer: £34.50

(c) 6.5% of £2,450

Answer: £159.25

(d) 3.2% of £19,500

Answer: £624.00

4 A restaurant adds a 12.5% service charge to a bill of £86.40. Work out the service charge.

Answer: £10.80

5 Priya earns £28,500 a year. She pays income tax of 20% on all the money she earns **over** £12,570. Work out how much tax she pays.

Answer: £3,186

6 A town has 48,500 people. 14.6% of them are aged over 65. How many people is this?

Answer: 7,081

7 An exam is marked out of 180. The pass mark is 65% of the total. Work out the pass mark.

Answer: 117 marks

8 A shop offers 12% cashback on purchases, but the cashback is never more than £25. Amira spends £250. How much cashback does she get?

Answer: £25

9 Estimate 48% of £603 by rounding. Then use a calculator to find the exact amount.

(a) Estimate the amount.

Answer: £300

(b) Work out the exact amount.

Answer: £289.44

10 Ben says, "150% of 40 is less than 40, because percentages are parts of 100." Is he right? Show how you know.

Answer: No. $150\% \text{ of } 40 = 60$

11 A survey asks 1,250 people which drink they prefer. 38.4% choose tea. How many people choose tea?

Answer: 480

12 A charity raises £18,400. It spends 3.5% on costs and the rest goes to the cause. How much goes to the cause?

Answer: £17,756

13 Show that 15% of 260 is equal to 26% of 150.

Answer: Both are 39