

GCSE Maths: Fractions of amounts (Foundation): answers

GCSE Maths - Fractions - Foundation - Lesson 3.8

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at websink.site/gcse/maths/ch03-fractions/foundation/fractions-of-amounts/

Exercise 3H Fractions of amounts

Non-calculator

1 Work out.

(a) $\frac{1}{2}$ of 18

Answer: 9

(b) $\frac{1}{5}$ of 35

Answer: 7

(c) $\frac{1}{8}$ of 64

Answer: 8

(d) $\frac{1}{10}$ of 250

Answer: 25

2 Work out.

(a) $\frac{3}{4}$ of 20

Answer: 15

(b) $\frac{2}{5}$ of 45

Answer: 18

(c) $\frac{5}{6}$ of 42

Answer: 35

(d) $\frac{7}{10}$ of 120

Answer: 84

(e) $\frac{3}{8}$ of 96

Answer: 36

(f) $\frac{4}{9}$ of 72

Answer: 32

3 Work out.

(a) $\frac{2}{3}$ of £45

Answer: £30

(b) $\frac{3}{5}$ of 2 kg

Answer: 1.2 kg (or 1200 g)

(c) $\frac{5}{8}$ of 4 m

Answer: 2.5 m

(d) $\frac{7}{12}$ of 1 hour

Answer: 35 minutes

(e) $\frac{3}{4}$ of 2 litres

Answer: 1.5 litres

(f) $\frac{2}{5}$ of £3.50

Answer: £1.40

4 Find the whole amount (the number the fraction is taken from).

(a) $\frac{1}{4}$ of a number is 12

Answer: 48

(b) $\frac{2}{5}$ of a number is 18

Answer: 45

(c) $\frac{3}{7}$ of a number is 21

Answer: 49

(d) $\frac{5}{6}$ of a number is 35

Answer: 42

5 Write the first quantity as a fraction of the second. Simplify.

(a) 15 out of 40

Answer: $\frac{3}{8}$

(b) 12 out of 18

Answer: $\frac{2}{3}$

(c) £4 out of £20

Answer: $\frac{1}{5}$

(d) 30 minutes out of 2 hours

Answer: $\frac{1}{4}$

6 A school has 840 pupils. $\frac{3}{8}$ of them walk to school. (a) How many walk? (b) How many do not walk?

(a) walk

Answer: 315

(b) do not walk

Answer: 525

7 A bag has 60 counters. $\frac{1}{3}$ are red and $\frac{1}{4}$ are blue. The rest are green. How many are green?

Answer: 20 red, 15 blue, so $60 - 35 = 25$ green

8 A coat costs £80. In a sale the price is reduced by $\frac{1}{4}$. What is the sale price?

Answer: £80 – £20 = £60

9 Maya has £60. She spends $\frac{1}{3}$ on a book and then $\frac{1}{4}$ of what is left on lunch. How much does she have left?

Answer: Book £20, left £40. Lunch £10, left £30.

10 Which is bigger, $\frac{2}{3}$ of 30 or $\frac{3}{4}$ of 24? Show your working.

Answer: 20 and 18, so $\frac{2}{3}$ of 30 is bigger.

11 Ben spends $\frac{1}{3}$ of his money on a game, then $\frac{1}{2}$ of the rest on food. He has £12 left. How much did he start with?

Answer: £36

12 **Challenge.** Ali gives $\frac{1}{5}$ of his marbles to Bo and $\frac{1}{3}$ of his marbles to Cy. He then has 21 marbles left. How many marbles did he start with?

Answer: He gives away $\frac{1}{5} + \frac{1}{3} = \frac{8}{15}$, so $\frac{7}{15}$ is left = 21. 1 part = 3, whole = 45 marbles.