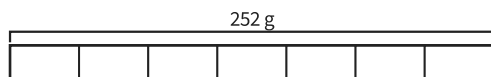


1 Fraction of an amount

- a) Work out $\frac{4}{7}$ of 252 g.
- b) A café sells 240 drinks in a day. $\frac{5}{12}$ of the drinks are hot. How many are cold?

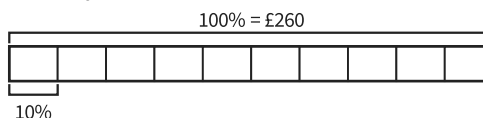


a) $252 \div 7 = 36, 36 \times 4 = 144 \text{ g}$

b) $\frac{7}{12}$ are cold: $240 \div 12 \times 7 = 140$

2 Percentage of an amount

- a) Work out 35% of £260.
- b) Which is more, 18% of £85 or 22% of £70? Show how you know.



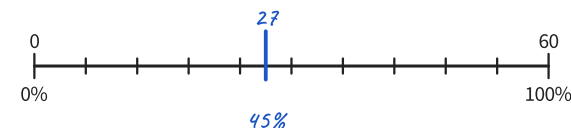
a) $10\% = £26, 30\% = £78, 5\% = £13: £91$

b) $0.18 \times 85 = £15.30, 0.22 \times 70 = £15.40$

b) 22% of £70

3 One number as a percentage of another

- a) Write 27 out of 60 as a percentage.
- b) Ella scores 18 out of 24 in French and 39 out of 50 in Spanish. Which test did she do better in?



a) $27 \div 60 \times 100 = 45\%$

b) French 75%, Spanish 78%: Spanish

4 Percentage increase and decrease

- a) Increase £72 by 15%.
- b) A sofa costs £650. In a sale, the price is reduced by 18%. Work out the sale price.

a) $72 \times 1.15 = £82.80$

b) $650 \times 0.82 = £533.00$

Percentages revision mat answers

Foundation A

5 Percentage profit and loss

- a) A shop buys a lamp for £45 and sells it for £63. Work out the percentage profit.
- b) The value of a car falls from £8500 to £6800. Work out the percentage decrease.

a) $18 \div 45 \times 100 = 40\%$

b) $1700 \div 8500 \times 100 = 20\%$

6 Reverse percentages

- a) A gym puts its price up by 8%. It now costs £37.80 a month. What did it cost before?
- b) In a sale, prices are cut by 15%. A rug costs £102 in the sale. What did it cost before the sale?

before	100%	?
now	108%	£37.80

a) $108\% = £37.80, 37.80 \div 1.08 = £35.00$

b) $85\% = £102, 102 \div 0.85 = £120.00$

7 Simple interest

- a) £2400 is invested at 2.5% simple interest a year. Work out the interest after 3 years.
- b) £800 earns £96 simple interest in 4 years. What is the rate of interest each year?

a) $2.5\% \text{ of } 2400 = £60, 60 \times 3 = £180.00$

b) $96 \div 4 = £24 \text{ a year}$

b) $24 \div 800 \times 100 = 3\%$

8 Compound growth and decay

- a) £4000 is saved at 2.5% compound interest a year. Work out its value after 2 years.
- b) A phone is worth £650. It loses 20% of its value each year. Work out its value after 3 years.

Start	£4000.00
Year 1	£4100.00
Year 2	£4202.50

a) $4000 \times 1.025^2 = £4202.50$

b) $650 \times 0.8^3 = £332.80$