Exercise walk-through

1.2 Fractions, decimals, percentages and units (N5–N10)

AQA · GCSE · Mathematics

Foundation or Higher?

Skill	Foundation	Higher
integer indices, **standard form**	yes	yes
fractional indices, **surds**	—	yes
recurring decimals to fractions	—	yes
error intervals	yes	yes
bounds in calculations	—	yes

Terms with examples

Term	Example
prime factor	$60 = 2^2 \times 3 \times 5$
reciprocal	-4 and $-\frac{1}{4}$
surd	$\sqrt{12} = 2\sqrt{3}$
recurring decimal	$0.\dot{2}\dot{7} = \frac{3}{11}$
significant figure	$0.004786 \to 0.0048$

Check yourself

Question	Answer
HCF of 72 and 90?	18
$\frac{5}{6} - \frac{3}{4}$?	$\frac{1}{12}$
$27^{2/3}$?	9
3.6 kg to 1 d.p.: interval?	$3.55 \leq m < 3.65$
Original if 20% off gives 64?	80

Exercises 2.1–2.3

2.1 Write 0.35 as a fraction in its simplest form. [2]

2.2 Increase 240 by 7.5 %. [2]

2.3 *(H)* Write 0.777 recurring as a fraction. [2]

Exercises 2.1–2.3

2.1 Write 0.35 as a fraction in its simplest form. [2]

2.1 35/100; = 7/20.

2.2 Increase 240 by 7.5 %. [2]

2.2 240 × 1.075; = 258.

2.3 *(H)* Write 0.777 recurring as a fraction. [2]

2.3 x = 0.777…, 10x = 7.777…, 9x = 7; x = 7/9.

Exercises 3.1–3.3

3.1 Write these in order of size: 3/8, 0.37, 38 %, 0.4. [3]

3.2 A car's price rises from £8500 to £9690. Work out the percentage increase. [3]

3.3 *(H)* Convert 0.4545 recurring (45 repeating) to a fraction in its simplest form. [3]

Exercises 3.1·3.3

3.1 Write these in order of size: 3/8, 0.37, 38 %, 0.4. [3]

3.1 As decimals: 0.375, 0.37, 0.38, 0.4; order: 0.37, 3/8, 38 %, 0.4; consistent smallest-to-largest presentation.

3.2 A car's price rises from £8500 to £9690. Work out the percentage increase. [3]

3.2 Increase = 9690 − 8500 = 1190; 1190/8500; × 100 = 14 %.

3.3 *(H)* Convert 0.4545 recurring (45 repeating) to a fraction in its simplest form. [3]

3.3 x = 0.4545…, 100x = 45.4545…, 99x = 45; x = 45/99; = 5/11.