Exercise walk-through

1.1.2 Signed Arithmetic

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 (Foundation) Find -12+35-9.

2.2 (Foundation) Find -4-(-7).

2.3 (Foundation) Evaluate $18 \div 3 \times 2$.

Exercises 2.1·2.3

2.1 (Foundation) Find -12+35-9.

2.1 -12+35=23, then 23-9=14.

2.2 (Foundation) Find -4-(-7).

2.2 Subtracting -7 adds 7: -4+7=3.

2.3 (Foundation) Evaluate 18÷3×2.

2.3 Equal priority: 18÷3=6, then 6×2=12.

Exercise 3.1

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3.1 False. Equal-priority multiplication and division proceed left to right: $18 \div 3 \times 2 = 6 \times 2 = 1$ Multiplying 3×2 first incorrectly gives 3.

Local review guidance: show the chosen method; give the checked result; explain the condition or failed shortcut. This is authored classroom guidance.