Oxford Revise | Edexcel GCSE Maths Foundation| Answers

Chapter 5 Percentages

Question	Answer	Extra information	Marks
5.1 (a)	$0.30 \times 220 = 66$	Method or equivalent Correct answer	1 1
5.1 (b)	54% of 50 = 50% of 54 = 54 ÷ 2 = 27 or 50% of 50 = 25, 4% of 50 = 2, 25 + 2 = 27	Method or equivalent Correct answer	1 1
5.1 (c)	$0.27 \times 720 = 194.4$	Method or equivalent Correct answer	1 1
5.1 (d)	$0.105 \times 18 = 1.89$	Method or equivalent Correct answer	1 1
5.2	10% of 2460 is 246 Half of this (5%) is 123 Add them together to get £369	Correct calculation Correct answer	1 1
5.3	110% of 90 > $\frac{8}{7}$ of 84	2 marks for correct answer or 1 mark for 99 or 96	2
5.4	3% of 50 000 = 50 000 ÷ 100 × 3 = 1500 New value = 50 000 + 1500 = 51 500	50 000 ÷ 100 × 3 or equivalent Correct answer	1 1

ISBN 9781382039840

Question	Answer	Extra information	Marks
5.5	Decrease $= 4 - 2.5 = 1.5$ litres % decrease $= \frac{1.5}{4} \times 100\% = 37.5\%$	$\frac{4-2.5}{4} \times 100\%$ Correct answer	1 1
5.6	Side lengths are 4 cm and 5 cm respectively % increase $= \frac{5-4}{4} \times 100\% = 25\%$	Getting 4 cm and 5 cm side lengths $\frac{5-4}{4} \times 100\%$ Correct answer	1 1 1
5.7	Total score for Maths $= 280$ 85% of $280 = 238$ Missing score $= 238 - (58 + 58 + 57) = 65$	280 Find 85% of 280 (or find 15% of 280 and subtract) Subtract 173 Correct answer	1 1 1 1
5.8	24 kg	2 marks for correct answer Or 1 mark for 20%, 0.2 or $\frac{2}{5}$	2
5.9	40%		1
5.10 (a)	Multiplier for 10% increase $= 1.1$ New value $= 50 \times 1.1 = 55$	Correct multiplier Correct answer	1 1
5.10 (b)	Multiplier for 55% decrease is 0.45 $40 \times 0.45 = 18$	Correct multiplier Correct answer	1 1

Question	Answer	Extra information	Marks
5.11	Multiplier for 7% decrease is 0.93 $90 \times 0.93 = 83.7$ mph	Correct multiplier Correct answer	1 1
5.12 (a)	Simple interest each year is 6% of 2450 $2450 \times 0.06 = 147$ So simple interest for 2 years $= 2 \times 147 = £294$	Correct method to find 6% of 2450 Multiplying answer above by 2 Correct answer	1 1 1
5.12 (b)	Multiplier for compound interest is 1.06 each year First year $= 2450 \times 1.06 = 2597$ Second year $= 2597 \times 1.06 = £2752.82$ Interest $= £2752.82 - £2450 = £302.82$	Correct multiplier Multiplying 2450 by 1.06 twice, or by 1.06^2 Correct answer	1 1 1
5.13	Multiplier for 4% decrease is 0.96 First year $= 3\,000\,000 \times 0.96 = 2\,880\,000$ Second year $= 2\,880\,000 \times 0.96 = 2\,764\,800$	Correct multiplier At least one step of multiplying a population by 0.96, or for multiplying by 0.96^2 Correct answer	1 1 1
5.14	30% reduction means the multiplier on the original price was 0.7 $0.7 \times$ original price $= 28$ original price $= 28 \div 0.7 = £40$	Divide by 0.7 Correct answer	1 1

Question	Answer	Extra information	Marks
5.15	15% increase means the multiplier on the distance ran yesterday was 1.15 $1.15 \times$ yesterday's distance $= 23$ yesterday's distance $= 23 \div 1.15 = 20$ miles	 Divide by 1.15 Correct answer	 1 1
5.16	$120\% = 1.20$ If the cost before VAT is £x, then $1.2x = 92.40$ $x = 92.40 \div 1.20 =$ £77	1.20 or 1.2 Divide by 1.20 Correct answer	1 1 1
5.17	$89\% = 0.89$ If original mass was y g, then $0.89y = 44.5$ $y = 44.5 \div 0.89 = 50$ grams	0.89 Divide by 0.89 Correct answer	1 1 1
5.18	$120\% = 1.20$ and $80\% = 0.80$ Let the original number be x. 20% increase gives $1.20x$ 20% decrease gives $1.20x \times 0.8 = 0.96x$ $0.96x < x$, so Ben is wrong.	 1.20 or 0.80 Multiply by 1.20 or 0.80 Complete and correct explanation	 1 1 1
5.19 (a)	$\frac{3}{7} \times \frac{5}{6} = \frac{15}{42} = \frac{5}{14}$	$\frac{15}{42}$ or for cancelling to get $\frac{1}{7} \times \frac{5}{2}$ $\frac{5}{14}$	1 1

Question	Answer	Extra information	Marks
5.19 (b)	$\frac{2}{5} \div \frac{3}{10} = \frac{2}{5} \times \frac{10}{3} = \frac{20}{15} = \frac{4}{3} \left(= 1\frac{1}{3} \right)$	Inverting $\frac{3}{10}$ and multiplying Unsimplified answer Completely simplified, correct answer	1 1 1
5.20	$2 \times 2 \times 2 \times 2 \times 3 \times 3$	2 marks for correct answer (accept $2^4 \times 3^2$) Or 1 mark for $2 \times 2 \times 2 \times 2$ (accept 2^4) Or 1 mark for 3×3 (accept 3^2)	2