



Mathematics

Paper 3

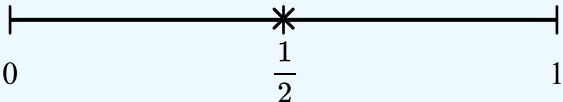
(Calculator)

Foundation Tier

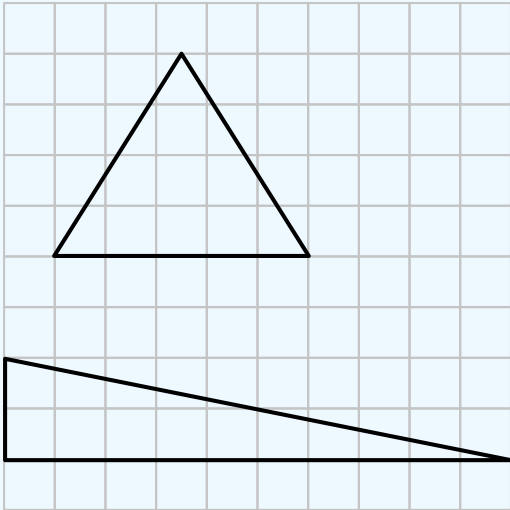
Mark Scheme

Edexcel GCSE

SET 3

Question	Working	Answer	Notes
Q1	$\frac{35}{100} = \frac{7}{20}$	$\frac{35}{100}$	A1 $\frac{35}{100}$ oe
Q2	$24 \div 4 = 6$	6	A1 cao
Q3		11:35am	A1 cao
Q4		Any two of 1, 2, 3, 6, 9, 18	A1 cao
Q5a		Cuboid	B1 cao
Q5b		8	A1 cao
Q6		$\frac{4}{9}$	A1 cao
Q7a			A1 cao
Q7b		$\frac{2}{6}$	A1 $\frac{2}{6}$ oe
Q8	$35 + 3 \times 4.99 = \text{£}49.97$ $3 \times 20 = \text{£}60$ $60 - 49.97 = \text{£}10.03$	£10.03	M1 $35 + 34.99 (= \text{£}49.97)$ M1 $3 \times 20 = \text{£}60$ and subtracts their '49.97' A1 cao
Q9	$25\% \text{ of } 50 = 50 \div 4 = 12.5$	12.5 litres	M1 $\frac{1}{4}$ or 25% seen M1 Attempt to find 25% of 50 A1 cao

Question	Working	Answer	Notes
Q10a		25	A1 cao
Q10b		$\frac{1}{3}$	A1 cao
Q11	$6 \times 12 + 5 \times 18 = 162$ $312 - 162 = 150$ $150 \div 25 = 6$	6	M1 $6 \times 12 + 5 \times 18 = 162$ M1 $312 - 162 = 150$ A1cao
Q12	$14:18 = 7:9$	7:9	M1 14:18 A1 cao
Q13a	$12 - 5 = 7, 8 - 5 = 3$ $12 + 8 + 5 + 3 + 7 + 5 = 40$	40cm	M1 7cm and 3cm seen or implied A1 cao
Q13b	$x + 7 + 2x + 5 + 2x - 2 = 5x + 10$	$5x + 10$	M1 Attempt to add all three sides A1 cao
Q14a	$5.5 \times 10 = 55km$	55km	M1 [5.3, 5.6cm] measured A1 55km (their [5.3 to 5.6] \times 10)
Q14b		035°	M1A1 035°

Question	Working	Answer	Notes
Q15 E.g. 		Any triangle with an area of 10cm^2	M1A1 Any triangle with an area of 10cm^2
Q16a		$\frac{7}{9}$	A1 cao
Q16b	$\frac{5}{9} = 30$ $\frac{1}{9} = 30 \div 5 = 6$ $\frac{9}{9} = 6 \times 9 = 54$	£54	M1 $\frac{5}{9} = 30$ oe M1 $30 \div 5 (= 6)$ A1 cao
Q17	$12F = PQ$ $P = \frac{12F}{Q}$	$P = \frac{12F}{Q}$	M1 Multiply F by 12 A1 cao
Q18a		4700	A1 cao

Question	Working	Answer	Notes
Q18b		0.006	A1 cao
Q18c		$5.25 \leq n < 5.35$	A1 One bound correct A1 cao
Q19	$1 \times 100 \times 100 = 10000$	$10,000\text{cm}^2$	A1 cao
Q20a	$4n + 5 = 6n - 21$ $5 = 2n - 21$ $26 = 2n$ $n = 13$	$n = 13$	M1 $6n - 21$ M1 Correct next step (e.g. $-4n$ or $+21$) A1 cao
Q20b	$p^3 = 125$ $p = \sqrt[3]{125} = 5$	$p = 5$	M1 Divide by 2 or 125 seen A1 cao
Q21a	50th/51st values lie in $40 < a \leq 60$	$40 < a \leq 60$	A1 cao
Q21b		*Plotted points at upper bounds of intervals *Joined the points in the incorrect order	B1 One correct mistake B1 Two correct mistakes
Q22		Enlargement, scale factor 3, centre of enlargement (0, 1)	B1 Enlargement B1 Scale factor 3 B1 Centre (0, 1)
Q23a	$8 + 3 \times 10 + 5 \times 12 + 2 \times 14 + 3 \times 16 +$ $2 \times 18 = 210$ $210 \div 16 = 13.125$	13.125	M1 Adds all values (= 210) and divides by 16 A1 cao

Question	Working	Answer	Notes
Q23b		*No clothes size 13.125 *Doesn't give us useful information about actual sizes of clothes sold	B1 A relevant statement
Q23c		Mode - it gives us information about the most common clothes size - useful for stock	B1 Mode B1 A relevant statement
Q24	$Q: (\frac{0+12}{2}, \frac{10+2}{2}) = (6, 6)$ $P - Q$: along 6, up 3 $Q - R$: along 12, up 6 $R: (18, 12)$	(18, 12)	M1 Point Q correct A1 x or y coordinate correct A1 cao
Q25a	$(5m + 4) - (m + 2) = 4m + 2$ $4m + 2 = 12$ $4m = 10$ $m = 2.5$	$m = 2.5$	M1 $4m + 2$ or $4m = 10$ seen A1 cao
Q25b	$9m + 6 = 9 \times 2.5 + 6 = 28.5$	28.5	A1 cao
Q26	$2000 \times 1.04^3 = £2249.73$ Or After 1 year: $2000 + 80 = 2080$ After 2 years: $2080 + 83.2 = 2163.20$ After 3 years: $2163.20 + 86.53 = 2249.73$	£2249.73	M1 1.04 seen or £2080 after one year M1 1.04^3 seen or attempt to find amount in account after 3 years using a compound method A1 cao
Q27	1, 2, 3, 4, 6, 8, 12, 16, 24, 48 1, 2, 4, 8, 16, 32, 64	16	M1 Correctly lists at least 4 factors of 48 and 64 or draws prime factor trees for 48 and 64 A1 cao

Question	Working	Answer	Notes
Q28a	$D = S \times T$ $D = 30 \times \frac{5}{60} = 2.5 \text{ miles}$	2.5 miles	M1 Attempt to use $D = S \times T$ A1 cao
Q28b	$T = \frac{D}{S}$ $T = \frac{2.5}{20} = \frac{1}{8} \text{ hour}$ $\frac{1}{8} \times 60 = 7.5 \text{ minutes}$ It will take 2.5 minutes longer	No - it will take 2.5 minutes longer	M1 Attempt to use $T = \frac{D}{S}$ A1 Correct conclusion following correct working
Q29a	<p>Spinner 1</p> <p>Spinner 2</p> <p>Lands on 1</p> <p>Doesn't land on 1</p> <p>Lands on 1</p> <p>Doesn't land on 1</p>		M1At least two values correct A1 cao
Q29b	$\frac{1}{3} \times \frac{1}{4} = \frac{1}{12}$	$\frac{1}{12}$	M1 <i>ft</i> Multiplies their ' $\frac{1}{3}$ ', and their ' $\frac{1}{4}$ ', A1 cao
Q30	$88\% = 8360$ $1\% = 8360 \div 88 = 95$ $100\% = 95 \times 100 = \text{£}9500$	£9500	M1 $88\% = 8360$ seen or implied A1 cao

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