



THIRD SPACE  
LEARNING

# Mathematics

## Paper 1

### (Non-Calculator)

### Foundation Tier

### Mark Scheme

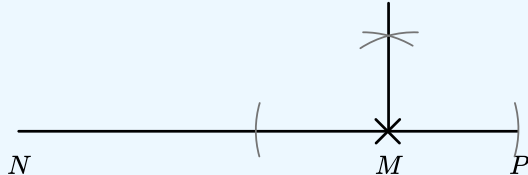
Edexcel GCSE

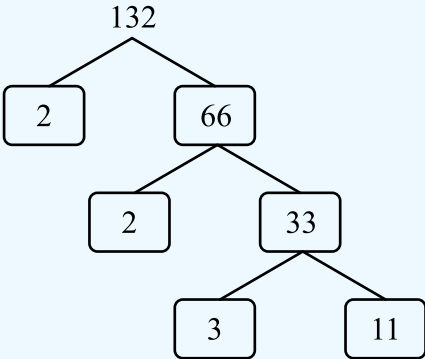
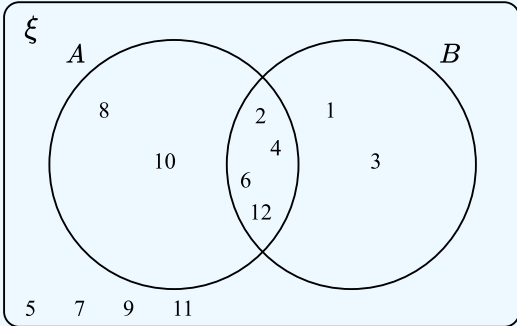
SET 4

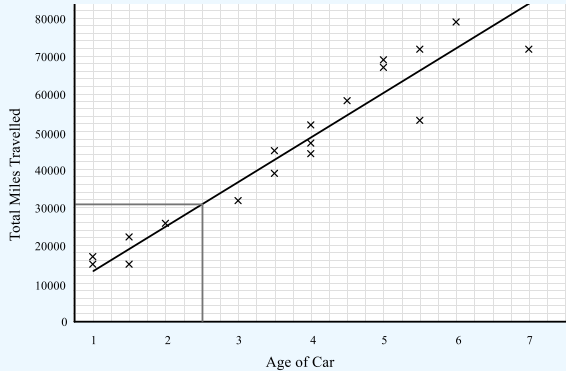
Question	Working	Answer	Notes
Q1		0.42	A1 cao
Q2		25	A1 cao
Q3		3.1	A1 cao
Q4		600	A1 cao
Q5		$9p$	A1 cao
Q6		No – not all of the sides are equal	B1 Correct explanation
Q7a		8	A1 cao
Q7b	May = 14 days, July = 8 days $14 - 8 = 6$ more	6	M1 8 or 14 seen A1 cao
Q8a		$n = 13$	A1 cao
Q8b		$m = 25$	A1 cao
Q9	$3 \times 25p = 75p = £0.75$ $£1.80 + £0.90 + £0.75 = £3.45$ $£5 - £3.45 = £1.55$	£1.55	M1 $75p$ oe seen M1 $£1.80 + £0.90 + £0.75 = £3.45$ A1 cao
Q10	$21 - 30 = -9$	-9	M1 Attempt to subtract 30 from 21 A1 cao

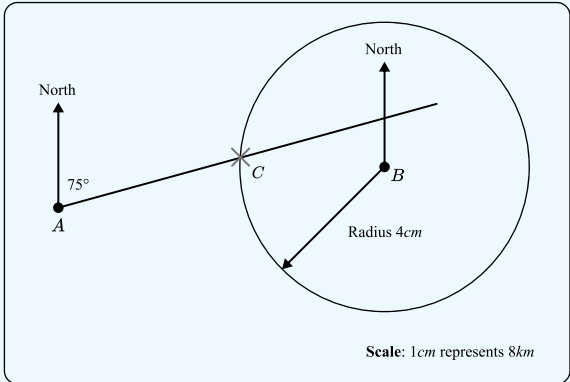
Question	Working	Answer	Notes
<b>Q11</b>	$\frac{4}{5}$ of 250 = 200 $250 - 200 - 2 = 48$ 48 in ratio 3:1 $48 \div 4 = 12$ , $12 \times 3 = 36$ chickens	36	M1 $\frac{4}{5}$ of 250 = 200 M1 $250 - 200 - 2 = 48$ M1 <i>ft</i> Attempt to divide their '48' in the ratio 3:1 A1 cao
<b>Q12a</b>		9	A1 cao
<b>Q12b</b>	2, 3, 5, 6, 9, 9, 11	6	M1 Correctly orders numbers A1 cao
<b>Q13a</b>		$\frac{4}{31}$	B1
<b>Q13b</b>	10% of 31 = 3.1 Or 4 = 10% of 40	More than 10%	B1 More than 10% B1 correct explanation
<b>Q14</b>	$15 + 10 \times 4 = 15 + 40 = 55$	55	M1 Correctly substitutes 4 A1 cao
<b>Q15</b>	$37 \times 24 = 888$	88.8	M1 Valid attempt at a written method A1 cao
<b>Q16a</b>	$7.5 \times 2 = 15$	15 km/h	M1 $7.5 \times 2$ or $7.5 \div 0.5$ A1 cao

Question	Working	Answer	Notes
<b>Q16b</b>		Priya was faster in the first part of her journey as the line is steeper than in the second part of her journey	B1 Faster in the first part of B1 Correct explanation
<b>Q17</b>	48 in the ratio 3:4:5 $3 + 4 + 5 = 12$ $48 \div 12 = 4$ $3 \times 4 = 12 \text{ cm}$	12cm	M1 $3 + 4 + 5 = 12$ M1 $48 \div 12 = 4$ or $3 \times 4$ seen A1 12cm
<b>Q18a</b>	Common difference = 9 $9n - 13$	$9n - 13$	M1 9n seen A1 cao
<b>Q18b</b>	$6 + 10 = 16$ $10 + 16 = 26$	16, 26	A1 16 A1 26
<b>Q19</b>	$5\frac{1}{3} - 2\frac{1}{2} = \frac{16}{3} - \frac{5}{2}$ $= \frac{32}{6} - \frac{15}{6}$ $= \frac{17}{6} = 2\frac{5}{6}$	$2\frac{5}{6}$	M1 $5\frac{1}{3} - 2\frac{1}{2}$ M1 Converts to improper fractions M1 Use of common denominator and subtracts numerators A1 cao

Question	Working	Answer	Notes
<b>Q20</b>	$9.30\text{am} - 12.15\text{pm} = 2 \text{ hours } 45 \text{ minutes}$ $1\text{pm} - 5.30\text{pm} = 4 \text{ hours } 30 \text{ minutes}$ Total = 7 hours 15 minutes $7 \times 16 = £112$ $16 \div 4 = £4$ $£112 + £4 = £116 \text{ per day}$ $£116 \times 5 = £580 \text{ per week}$  Or  7 hours 15 minutes per day 36 hours 15 minutes per week $36 \times 16 = £576$ $16 \div 4 = £4$ $£576 + £4 = £580$	£580	M1 Hours per day = 7 hours 15 minutes oe M1 Pay per day = £116 or hours per week = 36 hours 15 minutes oe M1 Attempt at $£116 \times 5$ or $36.25 \times £16$ A1 cao
<b>Q21</b>			M1 Arc on line $NP$ , same distance from $M$ as $P$ or two points equal distance from $M$ on line $NP$ marked M1 Fully correct with all construction lines shown

Question	Working	Answer	Notes
Q22	$5 \times 5 = 25$ $210 - 2 \times 25 = 160$ $160 \div 4 = 40$ $40 \div 5 = 8$ The length of the cuboid is $8\text{cm}$ $5 \times 5 \times 8 = 200\text{cm}^3$	$200\text{cm}^3$	M1 Process to find length of cuboid A1 Length of cuboid = $8\text{cm}$ M1 $5 \times 5 \times 8$ A1 $200\text{cm}^3$
Q23		$2^2 \times 3 \times 11$	M1 Correctly identifies at least 2 prime factors A1 (accept $2 \times 2 \times 3 \times 11$ )
Q24a			M1 At least 4 items placed correctly M1 At least 8 items placed correctly A1 All correct

Question	Working	Answer	Notes
<b>Q24b</b>	Number of values in $A \cup B = 8$	$\frac{8}{12}$	M1 8 elements in $A \cup B$ A1 $\frac{8}{12}$ oe
<b>Q25a</b>		As the age of the car increases, the total distance travelled increases	B1 Correct description B0 Positive correlation
<b>Q25b</b>		31000 miles	M1 Reasonable line of best fit A1 [29000 – 33000 miles]
<b>Q26a</b>	$p - 3 < \frac{p + 6}{3}$ $3p - 9 < p + 6$ $2p < 15$ $p < 7.5$	$p < 7.5$	M1 Reaches $3p - 9 < p + 6$ M1 Isolates term in $p$ A1 cao
<b>Q26b</b>		$(x + 8)(x - 5)$	M1 $(x \pm 8)(x \pm 5)$ A1 $(x + 8)(x - 5)$

Question	Working	Answer	Notes
<b>Q26c</b>		$x = -8$ or $x = 5$	A1 -8 and 5 stated
<b>Q27</b>		$\frac{1}{2}$	B1 $\frac{1}{2}$ oe
<b>Q28a</b>	$3x + 20 + 2x + 10 = 180$ $5x + 30 = 180$ $5x = 150$ $x = 30$	$x = 30$	M1 Forms equation $3x + 20 + 2x + 10 = 180$ or $5x + 30 = 180$ seen M1 Isolates term/terms in $x$ A1 cao
<b>Q28b</b>	Similar triangles – scale factor 4 $CE = 4y$	$4y$	M1 scale factor 4 A1 cao
<b>Q29</b>		See diagram	M1 Bearing of $075^\circ$ from $A$ M1 Circle or arc, radius $4cm$ A1 Point between $A$ and $B$ correctly marked $C$



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