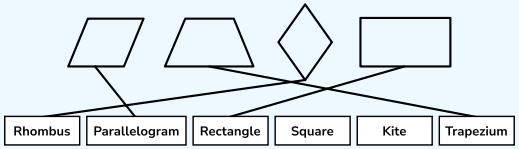
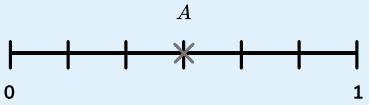
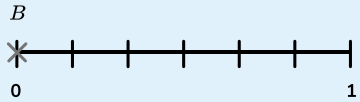
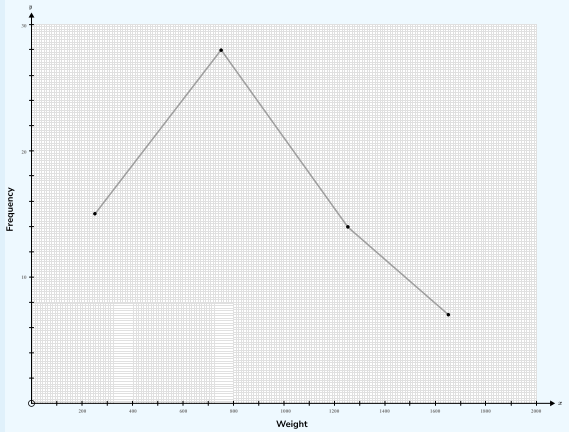
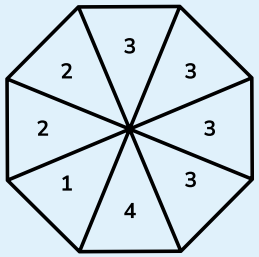
THIRD SPACE LEARNING

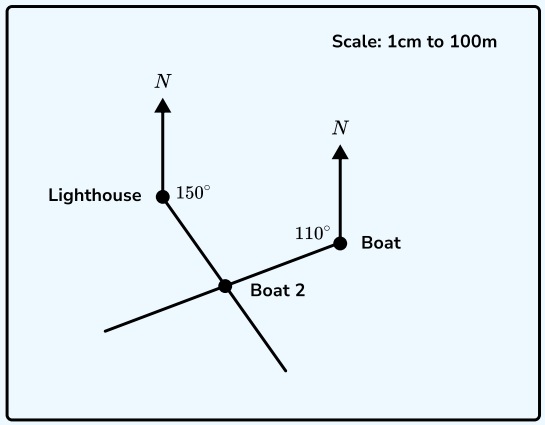
Paper 3 (Calculator) Mark Scheme Foundation

Edexcel

Question	Working	Answer	Notes
Q1			A1 At least 2 correct A1 All 4 correct
Q2a			A1 cao
Q2b			A1 cao
Q3a		10	A1 cao
Q3b		32	A1 cao
Q3c	$\frac{64}{100}$	$\frac{16}{25}$	M1 for writing $\frac{64}{100}$ A1 cao
Q4a		24+10-1	A1 cao
Q4b		$1 \div 2$	A1 cao
Q4c		1, 2, 6	A1 All three factors identified
Q5	$180 - 45 - 45 = 90^{\circ}$	Isosceles and Right angled	A1 Isosceles A1 Right angled (with no incorrect words circled)
Q6a		Triangular prism	A1 cao
Q6b		9	A1 cao

Question	Working	Answer	Notes
Q6c	$\frac{1}{2} \times 16 \times 11 = 88\text{cm}^2$	88cm^2	M1 Correct formula for area of triangle used A1 cao
Q7a		$\frac{12}{16}$	A1 oe
Q7b	$\frac{2}{16} \times 100 = 12.5\,\%$	$12.5\,\%$	M1 16-14=2 or 100-87.5=12.5 seen A1 cao
Q8			M1 At least three points plotted correctly M1 All four points plotted correctly A1 Points joined with straight lines
Q9	12, 24, 36, 48, 60, 72, …. 10, 20, 30, 40, 50, 60, 70, …. 15, 30, 45, *60*, 75, ….	Pencils: 5 Pens: 6 Rulers: 4	M1 60 or other common multiple identified A1 At least one number of packs correct A1 cao
Q10	180 - 32=148° 148÷2=74°	x=41° y=74° z=74°	M1 180-32=148° A1 y=74° A1 x=41° A1 z=74°

Question	Working	Answer	Notes
Q11			A1 3 seen in 4 sections A1 At least one 1 A1 cao
Q12	4n-1: 3, 7, 11, 15, 19, 23, 27, 31, …. 3n+2: 5, 8, 11, 14, 17, 20, 23, 26, …..	11 and 23	M1 Correctly writing the five terms of at least one sequence A1 Any number in both sequences A1 cao
Q13a		Class A: Median 17.5, Range 19 Class B: Median 14, Range 8	A1 Both values for range correct A1 Median for class B correct A1 Median for class A correct
Q13b		The median is higher in class A and the range of values is much higher in class A	A1 One correct statement comparing the two data sets A1 Two correct statements, one comparing the median and one comparing the range

Question	Working	Answer	Notes
Q14	Eloise x, Max 2x, Callie x-2 x+2x+x-2=38 4x-2=38 x=10 Eloise 10, Max 20, Callie 8	Eloise 10, Max 20, Callie 8	M1 Attempting to write expressions for the number of marbles each child has M1 Adding the expression and putting them equal to 38 M1 Solving to give x=10 A1 Substituting 10 into the expressions giving Eloise 10, Max 20, Callie 8
Q15a		500m	A1 cao
Q15b		105°	M1 line drawn between the lighthouse and the boat A1 allow answer between 103° and 107°
Q15c			M1 A line drawn from lighthouse or the boat on a correct bearing A1 cao
Q16a		$-6x^2+3x$	A1 cao

Question	Working	Answer	Notes
Q16b		$2ab(4a+5b^2)$	M1 Any correct factorisation A1 cao
Q17a	$30 \div 12 = 2.5$ $120 \times 2.5 = 300$g butter $150 \times 2.5 = 375$g sugar $2 \times 2.5 = 5$ eggs $160 \times 2.5 = 400$g flour	No she does not have enough flour	M1 2. 5 seen M1 At least 2 quantities correctly calculated A1 No with a correct explanation
Q17bi		120:150	A1 cao
Q17bii		1:1.25	M1 Any correct simplification of the ratio A1 cao
Q18a	$40 \div 1 = 40$km/h $30 \div 0.5 = 60$km/h $60 \div 2 = 30$km/h	B	M1 Calculating at least 1 speed correctly A1 cao
Q18b	$130 \div 3.5 = 37.1$km/h	Yes	M1 Attempt at using total speed and total time A1 Yes with relevant working
Q18c	$36 \div 60 \div 60 \times 1000 = 10$	10m/s	M1 Either dividing by 60 twice or multiplying by 1000 A1 cao

Question	Working	Answer	Notes
Q19a	$10 + cos(60) = 10.5$ $8^2 = 64$	0.1640625	M1 for 10.5 or 64 A1 cao
Q19b		0.16	A1 cao
Q20a	$\frac{1}{2}(6+11) \times 7 = 59.5cm^2$	$59.5cm^2$	M1 Use of correct formula for area of a trapezium or or splitting the shape into a rectangle and a triangle A1 cao
Q20b	$BC^2 = 7^2 + 5^2$ $BC = \sqrt{74}$ $BC = 8.602325267$	8.6cm	M1 7 and 5 substituted in to Pythagoras Theorem A1 cao
Q21a	$1200 \times 0.8 = £960$	£960	M1 20% of 1200 = 240 or 1200×0.8 seen A1 cao
Q21b	£480=80% £60=10% £600=100%	£600	M1 £480=80% seen A1 cao
Q22a	$x = 3y^2 + 4w$ $x + 4w = 3y^2$ $\frac{x+4w}{3} = y^2$ $\sqrt{\frac{x-4w}{3}} = y$	$y = \sqrt{\frac{x-4w}{3}}$	M1 Subtracting 4w and dividing by 3 A1 cao

Question	Working	Answer	Notes
Q22b	$y = \sqrt{\frac{10 + 4 \times 2}{3}}$	$y = 3$	M1 Substituting x=10 and w=2 into their formula (ft from part a) A1 cao

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