Question	Working	Answer	Mark	Notes
1 (i) (ii) (iii)		09 05 7 10	3	B1 cao B1 cao B1 cao
*2	80 × 2.5 = 200 not enough flour 60 × 2.5 = 150 almonds ok 90 × 2.5 = 225 sugar ok 60 × 2.5 = 150 butter ok 4 × 2.5 = 10 not enough pears	More flour and pears needed	4	M1 for use of 2.5 oe A2 for answers of 200,150, 225, 150, 10 (A1 for any one answer) C1 ft for identifying the need for more flour and pears backed up from their results.
3(a) 3(b)	 (Sum of all times) ÷ 15 327 ÷ 15	0 | 9 1 | 1 6 8 8 2 | 2 2 2 2 4 5 6 3 | 0 0 2 Key: 3|2 = 32 21.8	3 2	B2 for a fully correct diagram (B1 for ordered or unordered leaves, with just one error or omission) B1 for a correct key M1 for summing all times **and** dividing by 15 A1 cao
4(a) 4(b)		Triangle with vertices (2,-2), (3,-2), (2,-4) Enlargement, scale factor 3, centre (5, 5)	2 3	B2 for correct triangle (B1 for a reflection in $y = k, k \neq 0$ or for a reflection in the y-axis) B1 for Enlargement B1 for scale factor = 3 B1 for centre = (5, 5)

Question	Working	Answer	Mark	Notes
5	14059 − 12967 = 1092 1092 × 0.44 = 480.48 480.48 ÷ 12	40.04	5	M1 for 14059 − 12967 M1 for '1092' × 0.44 oe M1 for '480.48' ÷ 12 M1 for correct conversion to pounds A1 cao
6	½ × 5 × 12 + 9 × 8	102	4	M1 for splitting into sensible shapes; triangles, rectangles or trapezia M1 for a correct method to find one of the composite shapes A2 cao (A1 for one correct area)
7	24000 ÷ 1.45 = £16551.72 + £900 = £17451.72 = total costs £17451.72 × 1.20	20 942.07	3	M1 for 24000 ÷ 1.45 M1 for ('£16551.72'+ £900) ×1.20 A1 cao
8	1 − 0.995 = 0.005 0.005 × 10 000	50	3	M1 for 1 − 0.995 (or 0.005 seen) M1 for '0.005' × 10 000 A1 cao
9(a)		m^6	1	B1 cao
9(b)		y^2	1	B1 cao
9(c)		$8x^2 - 10xy$	1	B1 cao
10	½ × 3 × 4 × 7	42 cm^3	3	M1 for ½ × 3 × 4 × 7 A1 for 42 B1 ft for cm^3

Question	Working	Answer	Mark	Notes
11(a)	$3x + 6 = 4$ $3x = -2$	-2/3	2	M1 for $3x + 6 = 4$ A1 for -2/3 oe
11(b)	$3x/2 = 12$ $3x = 24$	8	3	M1 for $3x/2 = 12$ or $3x - 10 = 14$ M1 for $3x = 24$ A1 cao
12(a)		Biased	1	B1 for "Biased towards a particular age range"
12(b)		Select a random sample from all people in the school	1	B1 for "sample from all people in the school"
13(a)		79	1	B1 cao
13(b)		$7n - 5$	2	B2 for $7n - 5$ oe (B1 for $7n \pm k$, where k is an integer $\neq \pm 5$)
14	$(8.9 \times 10^3 - 8.8 \times 10^3) \times 2.5$	2.5×10^2	3	M1 for $8.9 \times 10^3 - 8.8 \times 10^3$ M1 for '$(8.9 \times 10^3 - 8.8 \times 10^3)$' $\times 2.5$ A1 cao
15		Correct locus	2	B2 for correct locus (B1 for omission of rounded locus at corners or for a 'correct' locus at any consistent distance from the edges.
16	$5y = 3y + 52$ $2y = 52$	26	3	M1 for $5y = 3y + 52$ oe M1 for $2y = 52$ A1 cao

Question	Working	Answer	Mark	Notes
17	$242 \times 0.88 = 275$ 275 - 242	33	3	M2 for $242 \times 0.88 = 275$ (M1 for $100 - 12$ or 88 or 0.88 seen) A1 cao
18(a)(i) (ii)		66 11 – 12	3	B1 for 66 – 67 M1 for lines drawn from cf = 12.5 and 37.5 (oe) A1 for answer in range 11 to 12
18(b)		50	1	B1 cao
18(c)		Correct box plot	3	M1 for box drawn between 'quartiles' A1 for 'median' drawn inside the box A1 for points at 50 and 90 joining the box with straight lines
19	$(x + 5)(x - 3)$	$x = -5, x = 3$	3	M1 for $(x \pm 5)(x \pm 3)$ A1 for $x = -5$ A1 for $x = 3$
20(i) *(ii)		$y = 0.5x + 10$ 0.5 = 50p charge per minute 10 = £10 standing charge	5	M1 for grad = $(60 - 10)/100$ oe or for $(y =) 0.5x + c$ M1 for $(y =) mx + 10$ A1 for $y = 0.5x + 10$ oe C1 for 0.5 = 50p charge per minute, oe C1 for 10 = £10 standing charge
21		(1, 1), (1, 0), (1, -1), (0, 0), (0, -1), (-1, -1)	3	B3 for all 6 points + no extra points (B2 for 3/4 out of no more than 6 points) (B1 for any one point out of no more than 6)

Question	Working	Answer	Mark	Notes
22(a)		160, **60, 40,** 100, 120	2	B1 for 60 B1 for 40
22(b)		Block 2.5 squares high Block 1 square high	2	B1 for block 2.5 squares high B1 for block 1 square high
23	8.45 ÷ 4.85 = 1.742	1.74	4	B1 for either 8.55 or 8.45 B1 for either 4.75 or 4.85 M1 for 8.45 ÷ 4.85 A1 for 1.74 or better
24	AB = 5/tan60 = 2.887… PC = 5/tan20 = 13.737.. Area ADP = 0.5 × 2.887 × 5 = 7.2175 Area $ABCD$ = 0.5 × (2.887 + 2.887 + 13.737)× 5 = 48.7775 7.2175/48.7775 × 100	14.8	5	M1 for either AB = 5/tan60 oe or PC = 5/tan20 M1 for Area ADP = 0.5 × 2.887 × 5 M1 for Area $ABCD$ = 0.5 × (2.887 + 2.887 + 13.737)× 5 M1 for '7.2175'/'48.7775' × 100 A1 for 14.8 or better
25(i) (ii) (iii) (iv)		(5, -4) (2, -9) (-2, -4) (2, -4)	4	B1 cao B1 cao B1 cao B1 cao
26	12 ÷ 10 = 1.2m per edge Area of squares = 1.2^2 × 4 = 5.76 Area of triangles = 0.5 × 1.2^2 × sin 60 × 8 = 4.988	10.7	6	B1 for 12 ÷ 10 = 1.2m per edge M1 for 1.2^2 × 4 M1 for 0.5 × 1.2^2 × sin60 M1 for '5.76' + 0.5 × 1.2^2 × sin60 × 8 A2 for 10.7 or better (A1 for area of a triangle = 0.624 or better)

Quest.	Topic/name	AO1	AO2	AO3	Total		FE	Nu	ManAI	NonManAI	G	S	Total	Low	Mid.	High	Total
1	Travel	3			3					3			3	3			3
2	Recipe			4	4		4	4					4	4			4
3	Stem & Leaf	5			5							5	5	5			5
4	Rot/Enlarge	5			5						5		5	5			5
5	Gas bill		3	2	5		5	5					5	5			5
6	Area		4		4						4		4	4			4
7	Car Sales		3		3		3	3					3	3			3
8	Machine comp			3	3		3					3	3	3			3
9	Indices	3			3				3				3	3			3
10	Volume	3			3						3		3	3			3
11	Equations	5			5				5				5	5			5
12	LH/Rhand		2		2							2	2	2			2
13	Sequence	3			3				3				3	3			3
14	Metal blocks		3		3			3					3		3		3
15	Loci	2			2		2				2		2	2			2
16	Angles in Tri		3		3				2		1		3		3		3
17	DVD		3		3		3	3					3		3		3
18	Cum Freq	7			7							7	7		7		7
19	Quadratic	3			3				3				3		3		3
20	TV Repairs		5		5		5			5			5		5		5
21	Inequalities	3			3					3			3		3		3
22	Histogram	4			4							4	4			4	4
23	Photograph			4	4		4						4			4	4
24	trapezium		3	2	5						5		5			5	5
25	Transform	4			4					4			4			4	4
26	Window		3	3	6						6		6			6	6
	Totals	50	32	18	100	0	25	22	16	15	26	21	100	50	27	23	100
	Percentage	50.0	32.0	18.0	100.0		25.0		AI:	31				50.0	27.0	23.0	
	Foundation % target:	40-50	30-40	15-25			30-40						Target %:	50	25	25	
	Higher % target:	40-50	30-40	15-25			20-30										