STADIRA TRAINING INSTITUTE

MARK SCHEME · Mathematics 0580/01 · Paper 1 (Core) · Mock Set 1

Maximum mark: 80

Question	Answer	Marks	Partial marks / guidance
1(a)	1424	B1	
1(b)	468	B1	
1(c)	28	B1	
2(a)	correct bar: apple = 8 (height 8, same width)	B2	B1 for bar of correct width in the correct place with wrong height
2(b)	3	B1	
3(a)	83	B1	
3(b)	0.09	B1	
4(a)	any 3 squares shaded	B1	
4(b)	3 more regions shaded (7 in total)	B1	
5(a)	divide by 10 oe	B1	
5(b)	7 and 1	B2	B1 for one correct or for -6 seen as the common difference
6	triangle with sides 4, 7, 7 cm	B2	B1 for correct arcs, no triangle
	triangle with sides 4, 4, 7 cm	B2	B1 for correct arcs, no triangle
7(a)	$4x + 11$	B2	B1 for $5x + 3 + 8 - x$ oe seen
7(b)	$6x - 5$	B2	M1 for $5x + 3 - (8 - x)$ oe
8	31 and 37	B2	B1 for one correct, no extras
9(a)	20	B2	B1 for 36 or 16 seen
9(b)	$\frac{1}{5}$ oe	B1	
9(c)	e.g. $\sqrt{30}$	B1	any irrational between 5 and 6
10	$a = 61$	B1	
	$b = 119$	B1	ft 180 - their 61
	$c = 119$	B1	ft 180 - 61
11(a)	$4 \times (7 - 2) + 3 = 23$	B1	
11(b)	$5 - (60 + 30) \div 15 = -1$	B1	
12	2^8	B2	B1 for 2^3 or 2^5 seen, or for 256
13	0.07	B1	
14	0 | 5 7 8 9 1 | 1 3 5 8 9 2 | 1 4 6	B2	B1 for ordered leaves with one error or unordered but complete
15(a)	0.2 oe	B1	
15(b)	32	B1	ft $40 \times (1$ - their 0.2)
16	correct net of a 3 cm cube (six 3 cm squares in a valid net)	B3	B2 for a correct net with one face misplaced; B1 for six 3 cm squares
17	55π	B3	M1 for $\pi \times 8^2$ or $\pi \times 3^2$ seen M1 for their 64π - their 9π
18	$4x(2x^2 - 3)$	B2	B1 for $4(x)(\ldots)$ or $x(8x^2 - 12)$ or $2x(4x^2 - 6)$
19(a)	12 in the intersection 4, 8 in A only; 6 in B only 1, 2, 3, 5, 7, 9, 10, 11 outside	B2	B1 for two of the three regions correct
19(b)	4	B1	ft their Venn diagram
20	$x = -4$	M1	for multiplying to equate one

	$y = 2$	M1	coefficient, e.g. ×4 and ×3,
		A1 A1	then correct elimination A1 for each of x and y
21(a)	rotation	B1	
	90° anticlockwise oe	B1	
	centre (0, 0) oe	B1	
21(b)	triangle at (-3, 4), (-3, 2), (-2, 2)	B2	B1 for rotation 180° about any centre
21(c)	(10, 1), (8, 1), (8, 2)	B3	B1 for each vertex
22(a)	$3x^2 + 14x + 8$	B2	B1 for three of $3x^2$, 12x, 2x, 8 seen
22(b)	$x^2 + 12x + 8$	B3	M1 for (3x + 2)(x + 4) - 2x(x + 1) oe A1 for $2x^2 + 2x$ seen subtracted
23	$24.5 \leq l < 24.7$	B2	B1 for each bound
24(a)	3.6×10^5	B2	B1 for 360 000 oe seen
24(b)	4×10^{-2}	B2	B1 for 0.04 oe seen
25	0.8 oe	B2	M1 for 0.4 × 40/20 seen
26	$4\frac{1}{2}$ cao	B3	M1 for 12/5 × 15/8 A1 for 180/40 oe
27(a)	line B, because only $\frac{x}{4}$ was multiplied by 4 (3 was not)	B1	must identify B and give a correct reason
27(b)	$\frac{B}{m\square^2}$	B1	

M = method mark · A = accuracy mark · B = independent mark · FT = follow through

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