STADIRA TRAINING INSTITUTE

MARK SCHEME • Mathematics 0580/01 • Paper 1 (Core) • Mock Set 5

Maximum mark: 80

Question	Answer	Marks	Partial marks / guidance
1(a)	4.05	B1	
1(b)	0.056	B1	
1(c)	58%, $\frac{3}{5}$, 0.62	B2	M1 for converting all three to the same form, e.g. 0.58, 0.6, 0.62
2(a)	positive	B1	accept "positive correlation"
2(b)	48 to 52	B1	ft a sensible reading from the scatter diagram
2(c)	90 kg is outside the range of the data	B1	oe, e.g. it would be extrapolation
3(a)	$a = 62$ vertically opposite angles	B2	B1 for 62 with no reason; the reason must be a correct angle fact
3(b)	$b = 62$	B1	corresponding / alternate angles
3(c)	$c = 118$	B1	ft 180 - their 62
4(a)	150	B2	M1 for 50/120 × 360 oe, or for 360 ÷ 120 = 3 seen
4(b)	30	B1	ft 10 × their 3
5(a)	$2\frac{1}{4}$ oe	B2	M1 for 3/2 + 3/4 oe seen
5(b)	$\frac{2}{3}$	B2	M1 for 5/8 × 16/15 oe seen
6(a)	correct perpendicular bisector with arcs shown	B2	B1 for correct arcs with no line, or for a line with no arcs
6(b)	cross marked 3 cm from A	B1	tolerance ±2 mm
7(a)	450	B2	M1 for 180 ÷ 12 (=15) seen, or for 30 ÷ 12 = 2.5 seen
7(b)	40	B2	M1 for 300 ÷ 90 × 12 oe
8(a)	$2^2 \times 3^3$	B2	B1 for a correct factor tree or for 2 × 2 × 3 × 3 × 3
8(b)	36	B2	M1 for $2^2 \times 3^2$ oe, or for listing the factors of both
9(a)	$-3p + 4q$ oe	B2	B1 for one correct term

9(b)	$5x^2$	B2	B1 for 5x^k or kx^2
10(a)	54	B2	M1 for 13.5 × 4 oe
10(b)	7.5	B2	M1 for 30 ÷ 4 oe
11(a)	153	B3	M1 for 1/2(22 + 12) seen M1 for × 9 oe
11(b)	1377	B2	M1 for their 153 × 3^2 oe
12(a)	$x = 25$	B2	M1 for x/5 = 5 oe
12(b)	$x = -4$	B2	M1 for -2x = 8 oe
13(a)	$\frac{4}{6}$ oe	B2	M1 for factors of 6 being 1, 2, 3, 6
13(b)	50	B1	
14(a)	30	B1	
14(b)	the differences are 4, 6, 8 so the next difference is 10	B1	oe, e.g. add 10 to the previous term
15	90π	B3	M1 for π × 3^2 seen M1 for × 10 oe
16	$x = 4$	M1	for a correct method to eliminate
	$y = 2$	A1 A1	A1 for each of x and y
17(a)	$x^2 + 5x - 24$	B2	B1 for three of x^2, 8x, -3x, -24
17(b)	$(x - 7)(x + 7)$	B1	
18(a)	3	B1	
18(b)	1.4	B3	M2 for (0×4 + 1×7 + 2×6 + 3×3) ÷ 20, or M1 for the sum 28 seen
19(a)	$y = 3x - 5$	B2	M1 for dividing every term by 2
19(b)	3	B1	ft their (a)
19(c)	(0, -5)	B1	ft their (a)
20(a)	300	B3	M2 for 210 ÷ 0.7 oe or M1 for 70% associated with 210
20(b)	$\frac{3}{10}$	B1	
21	250	B2	M1 for 70 + 180 oe
22(a)	324	B2	M1 for 240 × 1.35 oe
22(b)	500	B2	M1 for 675 ÷ 1.35 oe
23	200	B2	M1 for 5 × 20/0.5 seen

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

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