STADIRA TRAINING INSTITUTE

MARK SCHEME • Mathematics 0580/03 • Paper 3 (Core) • Mock Set 2

Maximum mark: 80

Question	Answer	Marks	Partial marks / guidance
1(a)	413	B1	
1(b)	3350	B2	M1 for 268 × 12.5 oe
1(c)	7 hours 35 minutes	B2	M1 for 14 20 - 06 45 attempted
2(a)	1	B1	
2(b)	1.5	B2	M1 for identifying the 10th and 11th values
2(c)	1.7	B3	M2 for (0×3 + 1×7 + 2×5 + 3×3 + 4×2) ÷ 20, or M1 for the sum 34 seen
3(a)	118.9	B2	M1 for 14.5 × 8.2 oe
3(b)	45.4	B2	M1 for 2(14.5 + 8.2) oe
3(c)	120	B1	ft their (a) to 2 sf
4(a)	600	B2	M1 for 4000 × 0.05 × 3 oe
4(b)	4600	B1	ft 4000 + their (a)
5(a)	15	B3	M2 for $\sqrt{12^2 + 9^2}$ oe or M1 for $12^2 + 9^2$ seen
5(b)	54	B2	M1 for 1/2 × 12 × 9 oe
6(a)	$x = 5$	B2	M1 for 7x = 35 oe
6(b)	$x = 18$	B2	M1 for x/3 = 6 oe
7(a)	3	B3	M2 for 6 × 50 000 = 300 000 cm or M1 for 6 × 50 000 seen
7(b)	24	B2	M1 for 12 km = 1 200 000 cm seen
8(a)	$\frac{5}{20}$ oe	B1	
8(b)	$\frac{13}{20}$ oe	B2	M1 for 1 - 7/20 oe
8(c)	80	B2	M1 for 200 × 8/20 oe
9(a)	7, 12, 17	B2	B1 for two correct
9(b)	152	B1	
9(c)	$5n + 2 = 100$ gives $n = 19.6$ which is not an integer	B1	oe, e.g. all terms end in 2 or 7
10(a)	3079	B3	M2 for $\pi \times 7^2 \times 20$ oe or M1 for $\pi \times 7^2$ seen
10(b)	880	B2	M1 for 2 × π × 7 × 20 oe
11(a)	900	B2	M1 for 1800 ÷ 10 or 180 seen
11(b)	20	B2	M1 for 360 seen, or for 2/10 oe
12(a)	20	B3	M2 for 650 - 520/650 × 100 oe or M1 for 130 seen
12(b)	598	B2	M1 for 520 × 1.15 oe
13(a)	2	B1	
13(b)	20	B2	M1 for 40 ÷ 2 oe
14(a)	-7 and -1	B2	B1 for one correct
14(b)	3	B1	
14(c)	(0, -4)	B1	
15(a)	30	B2	M1 for 360 ÷ 12 oe
15(b)	150	B1	ft 180 - their (a)
15(c)	15	B2	M1 for 360 ÷ 24 oe

16(a)	2.71×10^5	**B2**	M1 for 271 000 seen
16(b)	42	**B1**	
16(c)	4.2×10^{-4}	**B1**	
17(a)	p^8	**B1**	
17(b)	$4a^4$	**B2**	B1 for 4a^k or ka^4
18(a)	$10 < h \leq 20$	**B1**	
18(b)	20.25	**B4**	M1 for midpoints 5, 15, 25, 35 seen M2 for × their frequencies and adding (810), M1 for ÷ 40

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

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