STADIRA TRAINING INSTITUTE

MARK SCHEME • Mathematics 0580/03 • Paper 3 (Core) • Mock Set 4

Maximum mark: 80

Question	Answer	Marks	Partial marks / guidance
1(a)	259	B3	M1 for 11 × 18.50 (=203.50) seen M1 for 6 × 9.25 (=55.50) seen
1(b)	09 35	B1	
1(c)	57.6	B3	M1 for 2 h 55 min = 2.9166... hours oe M1 for 168 ÷ their time in hours
2(a)	2	B1	
2(b)	2	B2	M1 for identifying the 20th and 21st values
2(c)	1.8	B3	M2 for (0×5 + 1×11 + 2×14 + 3×7 + 4×3) ÷ 40, or M1 for sum 72
2(d)	$\frac{16}{40}$ oe	B2	M1 for 5 + 11 (=16) seen
3(a)	50	B3	M1 for 2w + 2(w + 30) = 260 oe M1 for 4w = 200 oe
3(b)	4000	B2	M1 for 80 × their 50 oe
4(a)	4620	B2	M1 for 12000 × 0.055 × 7 oe
4(b)	8	B3	M1 for interest per year = 660 seen M1 for 5000 ÷ 660 (=7.57...) oe
5(a)	14.2	B3	M2 for $\sqrt{21.7^2 - 16.4^2}$ oe or M1 for $21.7^2 - 16.4^2$ seen
5(b)	52.3	B2	M1 for 16.4 + 21.7 + their 14.2
6(a)	$x = 10$	B3	M1 for 7x - 21 = 4x + 9 oe M1 for 3x = 30 oe
6(b)	$x = 7$	B2	M1 for 2x + 1 = 15 oe
7(a)	23	B3	M1 for 46 ÷ 200 (=0.23 m) oe M1 for converting to cm
7(b)	2.1	B2	M1 for 1.05 × 200 (=210 cm) oe
8(a)	$\frac{8}{24}$ oe	B2	M1 for 24 - 7 - 9 (=8) seen
8(b)	64	B3	M1 for 5 parts = 40 so 1 part = 8 oe

			M1 for 8 × 8 oe
9(a)	53, 46, 39	**B2**	B1 for two correct
9(b)	-3 (the 9th term)	**B3**	M1 for 60 - 7n < 0 oe M1 for n > 8.57… so n = 9
10(a)	11.3	**B3**	M2 for $\pi \times 1.2^2 \times 2.5$ oe or M1 for $\pi \times 1.2^2$ seen
10(b)	4 hours 11 minutes	**B4**	M1 for their volume × 1000 (=11310) M1 for their litres ÷ 45 (=251.3 min) M1 for converting to hours and minutes
11(a)	40	**B3**	M1 for 2030 - 1450 (=580) seen M1 for 580/1450 × 100 oe
11(b)	1560	**B3**	M2 for 1794 ÷ 1.15 oe or M1 for 115% associated with 1794
12(a)	12, 6, 3	**B3**	B1 for each correct value
12(b)	*y* decreases	**B1**	oe, e.g. y gets smaller / halves when x doubles
13(a)	24	**B2**	M1 for 360 ÷ 15 oe
13(b)	3960	**B2**	M1 for (their 24 - 2) × 180 oe
14(a)	1.44×10^4	**B2**	M1 for 14400 seen
14(b)	1.08	**B2**	M1 for 7.3 or 6.76 seen
15(a)	$30 < h \leq 45$	**B1**	
15(b)	29.5	**B4**	M1 for midpoints 7.5, 22.5, 37.5, 52.5 M2 for × their frequencies and adding (1770), M1 for ÷ 60

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

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