

Polygons – Paper 2 – Mark Scheme

Question 1

6	135 cao	3	M1 for 720 or $(6 - 2) \times 180$ oe seen in working and M1 for equation $180 + 4x =$ their 720 or M1 for $(360 - 180) \div 4 (= 45)$ oe seen in working and M1 dep for $180 -$ their 45
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Question 2

10	60	3	B1 540 used M1 [their $540 - 3 \times 140$]/2
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Question 3

1	95	2	B1 for 85 seen or M1 $x = 180 -$ their angle ADC , if it is clearly seen
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Question 4

4	60	2	M1 $360 \div 6$
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Question 5

9	decagon	3	M1 for $360 \div 36$ oe A1 for 10
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Question 6

7	160	3	M2 for $180 - \frac{360}{18}$ or $\frac{180 \times (18 - 2)}{18}$ oe or M1 for $180 \times (18 - 2)$ or $\frac{360}{18}$
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Question 7

8	4140	2	M1 for $(25 - 2) \times 180$ or $25 \times \left(180 - \frac{360}{25}\right)$
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Question 8

8	(a)	68	1	
	(b)	15	2	M1 for $\frac{360}{n} = 24$ or $(n - 2)180 = 156n$

Question 9

18	(a)	47	1	
	(b)	117	2	M1 for $360 - (115 + 85 + 97)$
	(c)	244	2	B1 for 116 seen at centre or 122 seen at circumference

Question 10

17	145	3	M2 for $(6 - 2) \times 180 - 5 \times 115$ or M1 for $(6 - 2) \times 180$ <u>Alt method</u> M2 for $180 - (360 - 5 \times (180 - 115))$ or M1 for $360 - 5 \times (180 - 115)$
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Question 11

9	45	3	M2 for $360 \div (180 - 172)$ or M1 for $180 - 172$ or $\frac{180(n-2)}{n} = 172$ oe
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Question 12

13 (a)	72	1	2FT FT dep. on answer being obtuse M1 for $(360 - \text{their}(a) - 42) [\div 2]$
(b)	123		

Question 13

15 (a)	68	1	2 M1 for $360 \div 40$ oe or $\frac{180(n-2)}{n} = 140$ oe
(b)	9		

Question 14

17	60	3	B2 for $x = 6$ or M1 for $29x + x = 180$ oe and M1 for $360 \div 6$ or $360 \div \text{their } x$ or $180(n - 2) = \text{their } x \times 29n$
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Question 15

8	171	2	M1 for $180 - (360 \div 40)$ oe or $\frac{(40 - 2) \times 180}{40}$ oe
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