

Topic 5 Angles, area and volume (Post-TT) [38] MARKSCHEME

1.			
(a)	(i) Obtuse	B1	
	(ii) $180 - 62$	M1	
	118	A1	
	(b) $360 - (74 + 145 + 92)(= 49)$	M1	
	<i>oe</i>		
	$180 - (\text{their}) 49$	M1	
	131	A1	
			[6]
2.			
	$\frac{1}{2} \cdot 10 \times 6$	M1	
	30	A1	
			[2]
3.			
	$180 - 162$ or 18	M1	
	$(n - 2) \times 180 = 162n$		
	$360 \div \text{their } 18$	M1dep	
	$x = 20$	A1	
			[3]
4.			
	One correct rectangular area	B1	
	<i>Or one correct cuboid</i>		
	Complete method by rect. areas	M1	
	42	A1	
	Their 42×400	M1 dep	
	<i>Allow $\times 4$ for this M1</i>		
	16800	A1 ft	
	<i>ft if $\times 400$ used</i>		
			[5]
5.			
	$0.5 \times (12.4 + 19.3) \times 9.2$	M2	
	<i>M1 splitting into rectangle and a triangle</i>		
	<i>M1 rectangle 9.2×12.4, triangle 6.9×9.2</i>		
	145.82, or 145.8, or 146	A1	
			[3]

6.

(a) $a = 40$ B1
allow angles on diagram

$180 - [(their\ 40) + 20]$ M1

120 A1

SC1 reversed answers

(b) $\angle BAC = z$, or B1

$\angle CDE = x$ and $\angle DCE = y$

or $\angle BCE = x + z$

allow angles on diagram

Sum of angles of triangle = 180 B1 dep

Sum of angles on a straight line = 180

[5]

7.

$\frac{1}{4} \times \pi \times 4.8^2$	6.58	B1	for use of formula for area of a circle
$\frac{1}{2} \times 4.8 \times 4.8$		P1	for complete process to find area of shaded region
$\frac{1}{4} \times \pi \times 4.8^2 - \frac{1}{2} \times 4.8 \times 4.8$		A1	for 6.56 – 6.58

8.

105	P1	for process to find the exterior angle or interior angle of a hexagon or octagon
	P1	for process to find the both exterior angles or both interior angles
	A1	for 105 from correct working

9.

(a) $2n5$ $\pi 10$ M1

31.4..... A1

(b) $250 = \pi r^2 h$ M1

$250 \div 25\pi = h$ A1

$h = 3.2$ or 3.18 (.....) A1

3.19 A0

[5]

10.

$\angle BAD = 30$ or $\angle BCD = 25$ B1

$180 - (25 + 30)$ M1

125 A1

[3]