

## ANGLES AND PLANE FIGURES MARKING SCHEME

1.	$\angle AHC = \angle DCI = 63^\circ$ $\angle HCB = \angle ABG = 30^\circ$ $\angle G C J = 180^\circ - (30^\circ + 63^\circ)$ $= 87^\circ$ <p style="text-align: right;"><b>1989Q8</b></p>	2M	
2	$\angle BCD = \angle CDE + \angle CEO$ $\angle CED = 180^\circ - 70^\circ$ $= 110^\circ$ $133^\circ$ <p style="text-align: right;"><b>1991Q10</b></p>	3M	
3.	$SR=RQ ; \angle QRS = 55^\circ$ $\angle SQP = 55^\circ$ ALT to $\angle RSQ$ $\angle STQ = 90^\circ - 55^\circ = 35^\circ$ OR $180^\circ - (90^\circ + 55^\circ) \sqrt$ $= 35^\circ \sqrt$ <p style="text-align: right;"><b>1997Q3</b></p>	B1 B1	2 marks
4.	(a) $\angle CDF = 110^\circ - 60^\circ = 50^\circ$ (b) $\angle ABD = \angle BDE = 25^\circ$ Both reasoning given and both Reasoning given wrong – ow-1 One reason given (right or wrong) Ow-1 <p style="text-align: right;"><b>1998Q4</b></p>	A1 B1 1F	3mark s
5.	$2n-4$ right angles $2 \times 9 - 4 = 14$ right angles $14 \times 90^\circ = 1260^\circ$ <p style="text-align: right;"><b>1999Q3</b></p>	M1 A1 2 marks	
6.	a) $\angle BAE = 540^\circ = 108^\circ$ b) $\angle BAE = 108^\circ - 36^\circ - 72^\circ$ c) $\angle BNM = 90^\circ - 36^\circ = 54^\circ$ <p style="text-align: right;"><b>2000Q3</b></p>	B1 B1 B1 3 marks	
7.	angle sum of interior angles $= 90(2n - 4)$ $= 90(12-4) = 720^\circ$ $2x^\circ + \frac{1}{2}x^\circ + 40^\circ + 110^\circ + 130^\circ + 160^\circ$ $= 720^\circ$ $2.5x^\circ = 720^\circ - 440^\circ$ $2.5x = 280^\circ$ $2.5x = 280^\circ$ $x^\circ = 112^\circ$ smallest angle is $\frac{1}{2}x^\circ + 40^\circ$ $= \frac{1}{2} \times 112 + 40^\circ$ $= 96^\circ$ <p style="text-align: right;"><b>2001Q14</b></p>	B1 B1 B1 3 marks	
8.	$(180^\circ - 156^\circ)n = 36^\circ$ $24n = 36^\circ$ $N = 36^\circ / 24$ $= 15$ <p style="text-align: right;"><b>2004Q2</b></p>	M1 A1	
9.	$6x = 3600$ $x = 600$ $(180-60)n = 360$ $120n = 360$ $N = 3$ <p style="text-align: right;"><b>2005Q5</b></p>	B1 M1 A1 3 marks	
10.	a). $\angle ADE = 180^\circ - 108^\circ = 36^\circ$ b). $\angle AEF = (180^\circ - (108^\circ - 60^\circ)) \div 2$ c). $\angle DAE = 108^\circ - (60^\circ + 36^\circ)$ $= 12^\circ$ <p style="text-align: right;"><b>2006Q4</b></p>	B1 B1 B1 3 marks	
11.	$3x + (x-20) = 180^\circ$ $4x = 200^\circ$ $X = 50^\circ$ $(x-20)n = 360$ $30n = 360$ $n = 12$ <p style="text-align: right;"><b>2007Q2</b></p>	A1 M1 A1 3 marks	
12.	Let exterior $\angle = \angle$ at the centre ) be x $6.5x + x = 180$ $7.5x = 180$ $X = 240$ No of sides = $360^\circ / 24$ $= 15$ sides <p style="text-align: right;"><b>2009Q10</b></p>	M1 M1 1 3 Marks	

