

# Topic Test 1 Mark Scheme

## Properties of polygons - Higher

Q	Answer	Mark	Comments
1	$a + b = c$	B1	
2(a)	$360 \div 6$	M1	
	60	A1	
2(b)	120	B1	
3	One line of symmetry	B1	
4(a)	Parallelogram and trapezium	B1	
4(b)	All sides not equal or Diagonals do not cross at right angles	B1	
	No right angles or All angles not equal	B1	
4(c)	Diagonals bisect each other	B1	

Q	Answer	Mark	Comments
5	<b>Alternative method 1</b>		
	Exterior angle Octagon = 45	B1	
	Exterior angle Pentagon = 72	B1	
	27	B1	
	<b>Alternative method 2</b>		
	Interior angle Octagon = 135	B1	
	Interior angle Pentagon = 108	B1	
	27	B1	
6	$360 \times \left( \frac{1}{2} - \frac{n}{2} \right)$	B1	
7	$(180 - 100) \div 2$ or 40	M1	
	$360 \div$ their 40	M1dep	
	9	A1	
8	$EDC = 540 \div 5$ or 108 and $EDB = 1440 \div 10$ or 144	M1	
	$BDC = 360 -$ (their 108 + their 144) or 108	M1dep	
	$DBC = DCB = (180 -$ their 108) $\div 2$ or 36	M1dep	
	Ext angle $AB$ produced = 36, hence $ABC$ is a straight line	A1	Clear explanation why $ABC$ is a straight line.