



Angles Past Paper Questions (MS)

Q1.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)(i)	40	B1	cao	Underlined words need to be shown.
(ii)	Reason	C1	Reason given <u>Angles</u> in a <u>quadrilateral</u> add up to 360. Accept "4-sided shape"	
(b)	Explanation	C1	Explanation Acceptable examples 190 > 180 It does not add up to 180 80+60+50=190 Angles in a triangle add up to 180 Not acceptable examples One of the angles needs to be less You cannot draw this triangle	

Q2.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)	290	B1	cao	Accept 290°. May be seen on diagram provided no ambiguity
(b)	reason	C1	for correct reason: <u>Angles</u> at a <u>point</u> add to 360	The key words underlined must be present with the 360 implied if not stated by use in part (a)

Q3.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)(i)	30	B1	cao	
(ii)	Reason	C1	reason, eg <u>angles</u> on a <u>straight line</u> add up to 180°	
(b)	Explanation	C1	for explanation eg the two angles don't add up to 360 Acceptable examples 90 + 280 = 370 The two angles don't add up to 360 280 should be 270 Angles around a point equal 360° It should be 360 (in a circle) It should be 80 It should not be a right angle It cannot be 280° Not acceptable examples They don't add up to 180 365 degrees in a circle ┐ means 90 degrees	



Q4.

Question	Answer	Mark	Mark scheme	Additional guidance
(i)	21	M1 A1	for $180 - 75 - 84$ cao	Angle may be indicated on the diagram
(ii)	Reason given	C1	for reason that <u>Angles</u> on a <u>straight line</u> add up to 180	The key words <u>underlined</u> must be present There should be no incorrect reasons given

Q5.

Question	Answer	Mark	Mark scheme	Additional guidance
	Explanation	C1	for explanation Acceptable examples They do not add to 360 They add to 100 too least It is missing a 100 angle / It needs 100 more Because the total has to be 360 A whole circle is 360 Not acceptable examples They add up to 260 One of the angles is wrong A shape with 4 angles adds up to 360	

Q6.

	Working	Answer	Mark	Notes
* QWC		$x = 50^\circ$ with complete reasons	3	M1 for $180 - (65 + 65)$ A1 for $x = 50$ cao C1 (dep on M1) Base <u>angles</u> of an <u>isosceles</u> triangle are <u>equal</u> and <u>angles</u> in a <u>triangle</u> add up to <u>180</u>

Q7.

Question	Working	Answer	Mark	Notes
*	$360 - 200 - 90$ (=70) $(180 - '70') \div 2$ angles at a point add to 360° , angles in a triangle add to 180° , base angles of an isosceles triangle are equal	$y = 55$ reasons	4	M1 for $360 - 200 - 90$ oe M1 for $(180 - '70') \div 2$ Reasons: <u>angles</u> at a <u>point</u> add up to <u>360°</u> <u>angles</u> in a <u>triangle</u> add up to <u>180°</u> <u>base angles</u> of an <u>isosceles</u> triangle are <u>equal</u> C2 for $y = 55^\circ$ and all correct reasons Note: An answer of 55° alone, is not enough; $y = 55^\circ$ must be explicitly stated or clearly shown on the diagram (C1 for one correct reason) Note: the award of any C mark is dependant upon the award of at least M1



Q8.

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Question	Working	Answer	Mark	Notes
		290	3	M1 for $(180 - 40) \div 2$ M1 for $360 - '70'$ A1 cao

Q9.

Question	Working	Answer	Mark	Notes
		Shown, with reasons	M1	for method to find angle CBD , $180 - 110 (= 70)$
			M1	for full method e.g. $180 - 70 - 70 (= 40)$
			C1	for one appropriate reason
			C1	for complete set of appropriate reasons and BDC shown as 40 e.g. <u>Angles on a straight line</u> add up to 180 Base angles of an <u>isosceles triangle</u> are equal. <u>Angles in a triangle</u> add up to 180

Q10.

Question	Answer	Mark	Mark scheme	Additional guidance
	105	M1	for evidence of understanding the angle properties of a square or equilateral triangle, eg stating angle $DBC = 60$ or angle $EBD = 45$ or angle $BAE = 90$	Accept on the diagram with no contradiction in working, or no contradiction or ambiguity on the diagram; 90 can be shown as a right angle
		A1	cao	Could be shown on the diagram or in working, but do not accept contradiction or ambiguity.