

Question	Answer	Mark	Mark scheme	Additional guidance
18	Proof	M1	begins proof to show that triangles $ABO$ and $CBO$ or triangles $ABD$ and $CBD$ are congruent by giving one pair of equal sides or equal angles with reason	Where $D$ is point such that $BOD$ is diameter
		M1	for different pair of equal sides or angles with reason	
		C1	for full proof that triangles $ABO$ and $CBO$ are congruent, SSS, or triangles $ABD$ and $CBD$ are congruent, RHS, and therefore angle $ABO = \text{angle } CBO$  $AB = CB$ (given) $BO$ (or $BD$ ) is <u>common</u> $AO = CO$ <u>radii</u> of circle angle $BAD = \text{angle } BCD$ <u>angles</u> in a <u>semicircle</u> are 90 $(BO = AO = CO$ <u>radii</u> of circle) counts as two sides with reasons  <b>OR</b>	
		M1	draws $OA$ , $OC$ and $AC$ and labels angle $OAC = x$ and angle $OCA = x$ with reason given, $AO = CO$ <u>radii</u> of circle and base angles of an <u>isosceles triangle</u> are equal <b>or</b> $BAC = BCA$ since $ABC$ is isosceles	
		M1	shows $OAC = OCA$ <b>and</b> shows $BAC = BCA$ <b>and</b> uses these to show $OAB = OCB$ with all reasons given	
		C1	for full proof concluding with angle $ABO = y$ <b>and</b> angle $CBO = y$ with reason given, eg $OA = OB = OC$ radii of circle and $OBC$ and $OAC$ are isosceles	