## Circle Theorems: Proof

Videos 65a,b,c,d,e,f on www.corbettmaths.com

## Workout

Question 1: Prove that the angle in a semi-circle is always $90^{\circ}$


Question 2: Prove that the angle at the centre is twice the angle at the circumference.


Question 3: Prove the angles in the same segment are equal.


Question 4: Prove the opposite angles in a cyclic quadrilateral add to $180^{\circ}$


Question 5: Prove the angle between a tangent and the radius is $90^{\circ}$


Question 6: Prove the alternate segment theorem; that the angle between the tangent and the chord at the point of contact is equal to the angle in the alternate segment.


