Multiple choice questions - Circle theorems

Year: Year 11 · 10

Question 1 (Higher) The angle in a semicircle is

- ◯ **A.** 45 degrees
- ◯ **B.** 60 degrees
- ◯ **C.** 90 degrees
- ◯ **D.** 180 degrees

Question 2 (Higher) The angle at the centre is ... the angle at the circumference.

- ◯ **A.** equal to
- ◯ **B.** half
- ◯ **C.** twice
- ◯ **D.** three times

Question 3 (Higher) Opposite angles of a cyclic quadrilateral add up to

- ◯ **A.** 90
- ◯ **B.** 180
- ◯ **C.** 270
- ◯ **D.** 360

Question 4 (Higher) A tangent meets the radius at

- ◯ **A.** 45 degrees
- ◯ **B.** 60 degrees
- ◯ **C.** 90 degrees
- ◯ **D.** it depends

Question 5 (Higher) Tangents from the same point are

- ◯ **A.** parallel
- ◯ **B.** perpendicular
- ◯ **C.** equal in length
- ◯ **D.** different lengths

Question 6 (Higher) Angles in the same segment are

- ◯ **A.** supplementary
- ◯ **B.** equal
- ◯ **C.** complementary

◯ **D.** double

Question 7 (Higher) Angle at the centre is 100. The angle at the circumference is

◯ **A.** 50
◯ **B.** 100
◯ **C.** 200
◯ **D.** 80

Question 8 (Higher) The perpendicular from the centre to a chord

◯ **A.** doubles the chord
◯ **B.** bisects the chord
◯ **C.** is a tangent
◯ **D.** is the longest chord

Question 9 (Higher) In a cyclic quadrilateral one angle is 70. The opposite angle is

◯ **A.** 70
◯ **B.** 110
◯ **C.** 20
◯ **D.** 290

Question 10 (Higher) Triangle OAB where OA and OB are radii is

◯ **A.** scalene
◯ **B.** isosceles
◯ **C.** right-angled
◯ **D.** equilateral always

Answer grid - Circle theorems

Year: Year 11

Question	Answer	Explanation
1	**C**	Right angle.
2	**C**	Twice.
3	**B**	180 degrees.
4	**C**	Perpendicular.
5	**C**	Equal.
6	**B**	Equal.
7	**A**	Half.
8	**B**	Bisects it.
9	**B**	180-70.
10	**B**	Two equal sides.