Circles

Syllabus tracker Open it online

Name: _____

Date: _____

Tick one circle for each statement — on screen (click) or with a pen. Then try the quick checks: write your answer in the box, check it against the answers at the end, and tick “right” when you got it.

Words and first theorems

Circle vocabulary, the angle in a semicircle and tangent–radius.

	Don't know	Shaky	Got it
I can use the vocabulary of a circle.	○	○	○
I can use: the angle in a semicircle is 90°.	○	○	○
I can use: a tangent is perpendicular to the radius.	○	○	○

The other circle theorems

Centre, same segment, cyclic quadrilateral, alternate segment, tangents from a point and chords.

	Don't know	Shaky	Got it
I can use: the angle at the centre is twice the angle at the circumference.	○	○	○
I can use: opposite angles of a cyclic quadrilateral add up to 180°.	○	○	○
I can use: angles in the same segment are equal.	○	○	○
I can use the alternate segment theorem.	○	○	○
I can use: tangents from an external point are equal in length.	○	○	○
I can use the chord properties.	○	○	○

Quick checks

One quick question per statement. Answer in the box, then check the answers at the end.

1. A straight line that touches a circle at exactly one point is called a…
A tangent **B** chord **C** radius **D** arc

Answer: _____ ☐ I got it right

2. AB is a diameter and C is on the circle. Angle CAB = 35°. Find angle CBA in degrees.

Answer: _____ ☐ I got it right

3. A tangent touches a circle (centre O) at T. P is on the tangent and angle TOP = 62°. Find angle OPT.

Answer: _____ ☐ I got it right

4. An arc makes 130° at the centre. What angle does it make at the circumference?

Answer: _____ ☐ I got it right

5. ABCD is a cyclic quadrilateral with angle A = 74°. Find angle C.

Answer: _____ ☐ I got it right

6. Angles ACB and ADB stand on chord AB, with C and D on the same side. Angle ACB = 40°. Angle ADB is…
A 40° **B** 80° **C** 140° **D** 20°

Answer: _____ ☐ I got it right

7. The angle between a tangent and a chord is 58°. What is the angle in the alternate segment?

Answer: _____ ☐ I got it right

8. Tangents from P touch a circle at A and B. Angle APB = 50°. Find angle PAB.

Answer: _____ ☐ I got it right

9. The perpendicular from the centre of a circle to a chord…
A bisects the chord **B** is equal to the radius **C** is a tangent **D** always passes through the chord's end

Answer: _____ ☐ I got it right

Answers

Try every question first, then check.

1. A: tangent
2. 55
3. 28
4. 65
5. 106
6. A: 40°
7. 58
8. 65
9. A: bisects the chord