

Polygons

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.

Angle facts and parallel lines

Angles on a line, at a point, in triangles and quadrilaterals; alternate, corresponding and co-interior angles.

	Don't know	Shaky	Got it
I can use angles on a straight line, at a point and vertically opposite.	☐	☐	☐
I can use the angle sums of a triangle and a quadrilateral.	☐	☐	☐
I can use alternate, corresponding and co-interior angles.	☐	☐	☐
I can give the correct geometric reason for an angle.	☐	☐	☐

Angles in polygons

Interior and exterior angles of regular and irregular polygons.

	Don't know	Shaky	Got it
I can find the sum of the interior angles of a polygon.	☐	☐	☐
I can find the interior angle of a regular polygon.	☐	☐	☐
I can find the number of sides from an exterior angle.	☐	☐	☐
I can find a missing angle in an irregular polygon.	☐	☐	☐

Quick checks

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

1. Three angles on a straight line are $2x$, $3x$ and $4x$. Find x .

Answer: _____ ☐ I got it right

2. A quadrilateral has angles 85° , 110° and 95° . Find the fourth angle in degrees.

Answer: _____ ☐ I got it right

3. Two parallel lines are crossed by a transversal. Co-interior angles...

A add up to 180° **B** are equal **C** add up to 90° **D** add up to 360°

Answer: _____ ☐ I got it right

4. Angles in a Z-shape between parallel lines are equal. What is the correct reason to write?

A Alternate angles are equal **B** Corresponding angles are equal **C** Vertically opposite angles are equal **D** Co-interior angles are equal

Answer: _____ ☐ I got it right

5. Find the sum of the interior angles of a hexagon, in degrees.

Answer: _____ ☐ I got it right

6. Find the size of one interior angle of a regular decagon, in degrees.

Answer: _____

☐ I got it right

7. Each exterior angle of a regular polygon is 24° . How many sides does it have?

Answer: _____

☐ I got it right

8. A pentagon has angles x , $2x$, 100° , 110° and 120° . Find x .

Answer: _____

☐ I got it right

Answers

Try every question first, then check.

- | | |
|----------------------------------|--------|
| 1. 20 | 5. 720 |
| 2. 70 | 6. 144 |
| 3. A: add up to 180° | 7. 15 |
| 4. A: Alternate angles are equal | 8. 70 |