Your notes

KS3 Maths: revision notes

Angles

Contents

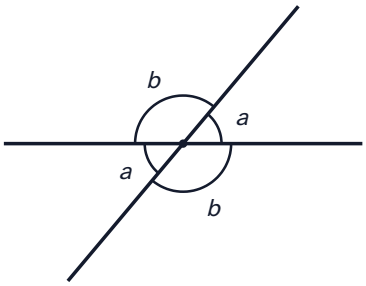
1. Types of angle
2. Angle facts
3. Parallel lines
4. Polygons and bearings
5. Key terms
6. Quick questions
7. What to do next

Types of angle

- Acute: less than 90°. **Right angle**: exactly 90°. Obtuse: between 90° and 180°. Reflex: between 180° and 360°.
- Measure and draw angles with a protractor, starting from 0 on the correct scale.

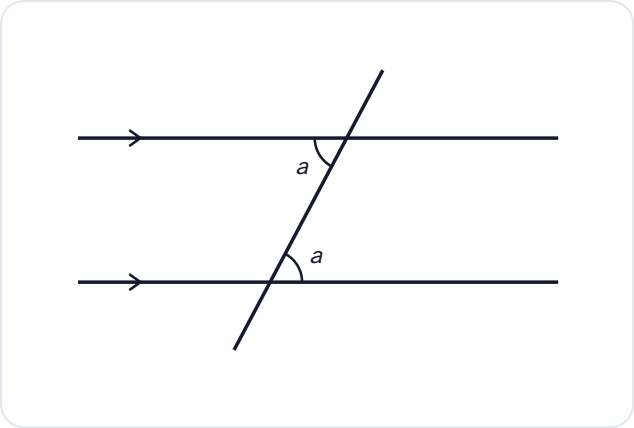
Angle facts

- Angles on a straight line add up to 180°. Angles around a point add up to 360°.
- **Vertically opposite angles** are equal.
- Angles in a triangle add up to 180°. Angles in a quadrilateral add up to 360°.
- An isosceles triangle has two equal angles; an equilateral triangle has three angles of 60°.



Parallel lines

- **Alternate angles** are equal (a Z shape).
- **Corresponding angles** are equal (an F shape).
- **Co-interior angles** add up to 180° (a C shape).



Your notes

Polygons and bearings

- The **interior angles** of a polygon with n sides add up to (n – 2) × 180°: a pentagon's add up to 540°.
- The **exterior angles** of any polygon add up to 360°. In a regular polygon, each **exterior angle** is 360° ÷ n, and interior + exterior = 180°.
- **Bearings** are measured clockwise from north and written with three figures: east is 090°.

Key terms

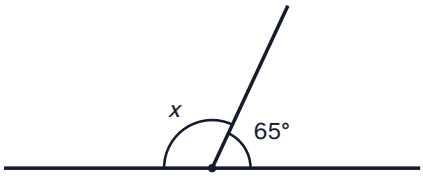
Acute angle	An angle less than 90°.
Right angle	An angle of exactly 90°.
Obtuse angle	An angle between 90° and 180°.
Reflex angle	An angle between 180° and 360°.
Vertically opposite angles	The equal angles opposite each other where two lines cross.
Alternate angles	Equal angles on opposite sides of a line crossing parallel lines (Z shape).
Corresponding angles	Equal angles in matching positions on parallel lines (F shape).
Co-interior angles	Angles between parallel lines on the same side, which add up to 180°.
Interior angle	An angle inside a polygon.
Exterior angle	The angle between one side of a polygon and the next side extended.
Bearing	A direction measured clockwise from north, with three figures.

Quick questions

Cover the answers and test yourself: remembering is what makes it stick.

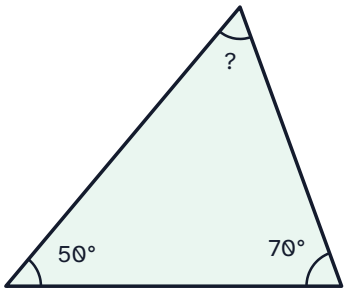
1. What type of angle is 125°?

2. Two angles on a straight line are 65° and x. What is x?



3. What do the angles in a triangle add up to?

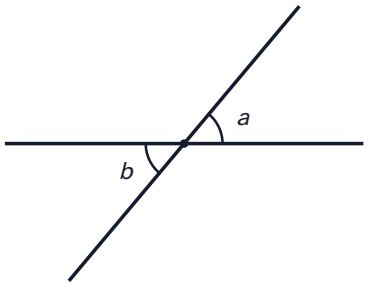
4. A triangle has angles of 50° and 70°. What is the third angle?



5. What do the angles around a point add up to?

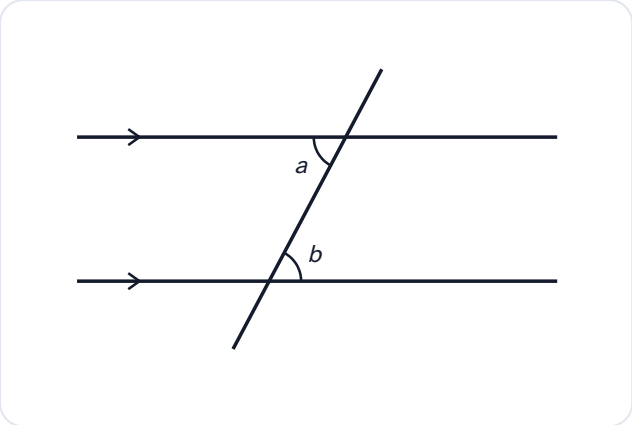
6. What do the angles in a quadrilateral add up to?

7. What is true about vertically opposite angles?



Your notes

8. What is true about alternate angles on parallel lines?



Answers

1. Obtuse
2. 115°
3. 180°
4. 60°
5. 360°
6. 360°
7. They are equal
8. They are equal

What to do next

Practise 14 questions on this topic

Try 4 exam questions, with mark schemes

Read the lesson, one step at a time

Free revision for GCSE and KS3 at lycolearn.co.uk. Some notes are for one exam board only, and say so in brackets.

Your notes