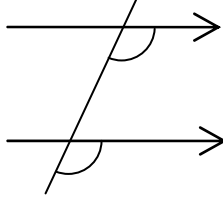


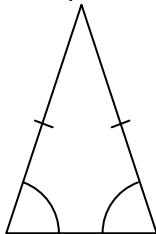
Acute – less than 90°
Obtuse – greater than 90° , less than 180°
Reflex – greater than 180° , less than 360°

Angles on a **straight line** add up to 180° .

Corresponding angles are equal.



Base angles in an **isosceles triangle** are equal.



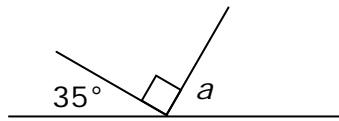
In **regular** shapes:
 1. all angles are equal
 2. all sides are equal.

For any polygon, the sum of **interior angles** is $(\text{sides} - 2) \times 180$.

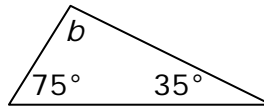
In any polygon, **exterior angles** sum to 360° .

Remember to give reasons and/or workings for your answers!

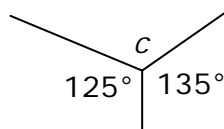
1. Calculate the value of a .



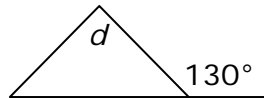
2. Calculate the value of b .



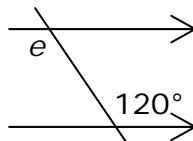
3. Calculate the value of c .



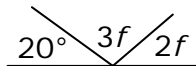
4. Calculate the value of d .



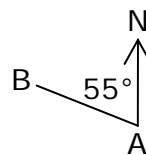
5. Calculate the value of e .



6. Calculate the value of f .



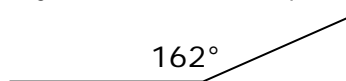
7. Calculate the bearing from A to B and the bearing to A from B.



8. Calculate the value of one interior angle in a regular decagon.

9. Four interior angles in a pentagon are 100. What is the value of the fifth angle?

10. Here is part of a regular polygon. How many sides does this shape have?

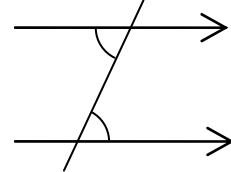


A **right angle** is 90° .

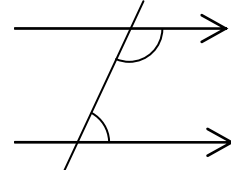
Angles at a **point** add up to 360° .

Angles in a **triangle** add up to 180° .

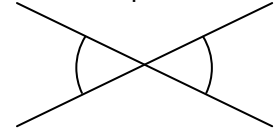
Alternate angles are equal.



Allied/interior angles sum to 180° .



Opposite angles are equal.



For any polygon, corresponding **interior and exterior angles** sum to 180° .

Bearings are always:
 1. measured c/w from North
 2. given in 3 figures.

3 triangle | 4 quadrilateral | 5 pentagon | 6 hexagon | 7 heptagon | 8 octagon | 10 decagon

Teaching notes

This resource contains a selection of questions accompanied by revision notes. The notes are colour coded to give students an indication of the GCSE grade they are working towards, useful in self or peer assessment:

- blue: grades G – E
- green: grades D/C
- red: grades B – A*

You can choose whether to reveal the grades before or after students complete the questions.

Suggested uses

- Use as an individual revision sheet, homework, cover work, open book test, etc.
- Photocopy onto A3 and use as a poster during revision season.
- Laminate and tape to the desk for small group revision. You could create 'revision stations' with other Desktop revision resources on www.teachitmaths.co.uk (quick search: 'desktop').

Answers

1. 55° (angles on a straight line sum to 180°)
2. 70° (angles in a triangle sum to 180°)
3. 100° (angles at a point sum to 360°)
4. 80° (base angles in an isosceles triangle are equal (50° each), and angles in a triangle sum to 180°)
5. 120° (alternate angles are equal)

$$3f + 2f + 20 = 180$$
6. $5f = 160$ (angles on a straight line sum to 180°)

$$f = 32^\circ$$
7. A to B = 305° (bearings are measured c/w from North)
B to A = 125° (for return bearings, $\pm 180^\circ$)
8. Angles in a decagon = $(10 - 2) \times 180 = 1440^\circ$
One angle = $\frac{1440}{10} = 144^\circ$
9. Angles in a pentagon = $(5 - 2) \times 180 = 540^\circ$
Fifth angle = $540 - 400 = 140^\circ$
10. One exterior angle = $180 - 162 = 18^\circ$
 $\frac{360}{18} = 20$ sides