## **Geometry and measures GM1.1**

## **Angles**

- Knowing that there are 180° on a straight line and in a triangle
- Knowing that there are 360° around a point and in a quadrilateral
- Identifying vertically opposite angles
- Using angle rules to solve problems

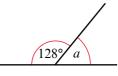
Keywords

You should know

## explanation 1

1 Calculate the size of each angle marked by a letter.

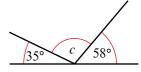
a



b



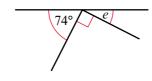
c



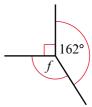
d



e



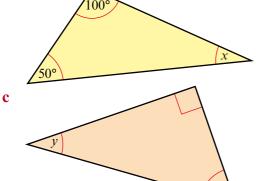
f



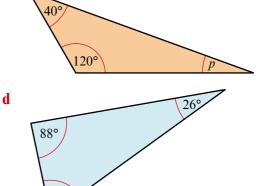
## explanation 2

**2** Calculate the size of each angle marked by a letter in these triangles.

a

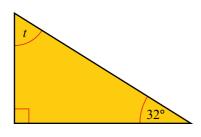


b

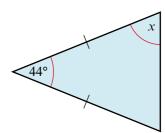


**3** Calculate the size of each angle marked by a letter in these triangles.

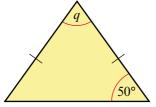
a



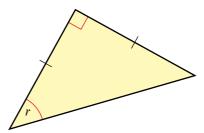
h



c



d

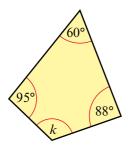


explanation 3a

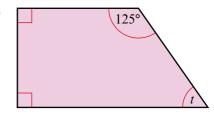
explanation 3b

**4** Calculate the size of each angle marked by a letter in these quadrilaterals.

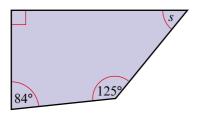
a



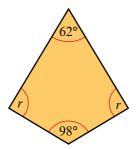
U



c



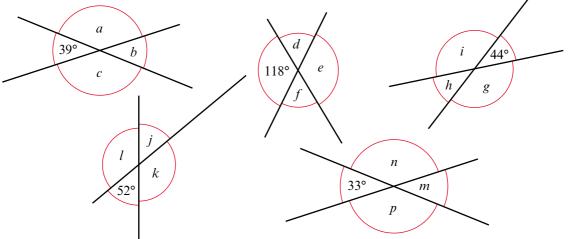
d



explanation 4a

explanation 4b

**5** Calculate the size of each angle marked by a letter.



\*6 Look at each of the diagrams below. Which rule from the box would you use to find the size of the lettered angles?

Use your rules to find the size of the lettered angles.

- A Angles around a point add to 360°
- B Angles on a straight line add to 180°
- C Angles in a triangle add to 180°
- D Two angles in an isosceles triangle are the same
- E Angles in a quadrilateral add to 360°
- F Vertically opposite angles are equal

a b c 195° c 195° c 40° d 40°

explanation 5

\*7 Calculate the size of each lettered angle. Explain your methods clearly.

a  $k \frac{44^{\circ}}{j l}$   $k \frac{44^{\circ}}{132^{\circ}}$   $k \frac{44^{\circ}}{35^{\circ}}$   $k \frac{120^{\circ}}{87^{\circ}}$   $k \frac{146^{\circ}}{32^{\circ}}$ 

\*8 Calculate the size of each lettered angle. Explain your methods clearly.

