



# All about angles

Name angles meeting at a point, on a straight line or vertically opposite and find missing angles

**Challenge 1**

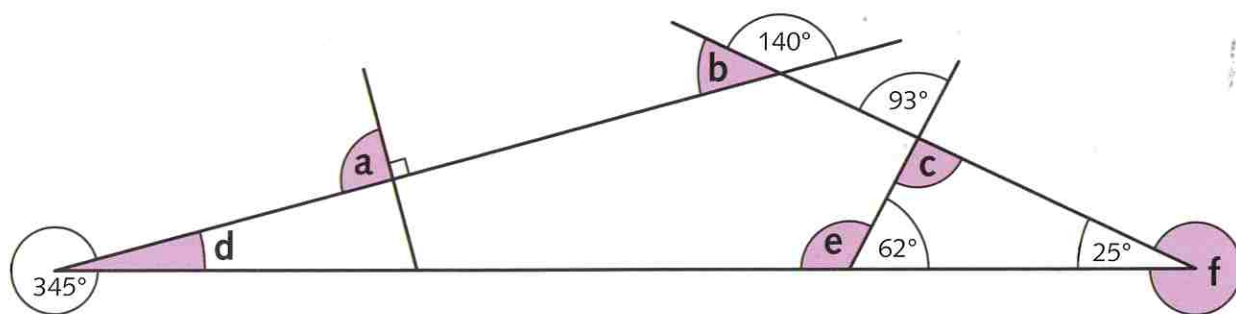
For each angle:

- Calculate its size in degrees.
- Write whether it is acute, right, obtuse or reflex.

**Example**

$$b = 180^\circ - 140^\circ = 40^\circ$$

**b** is acute



**Challenge 2**

1 For each named angle below:

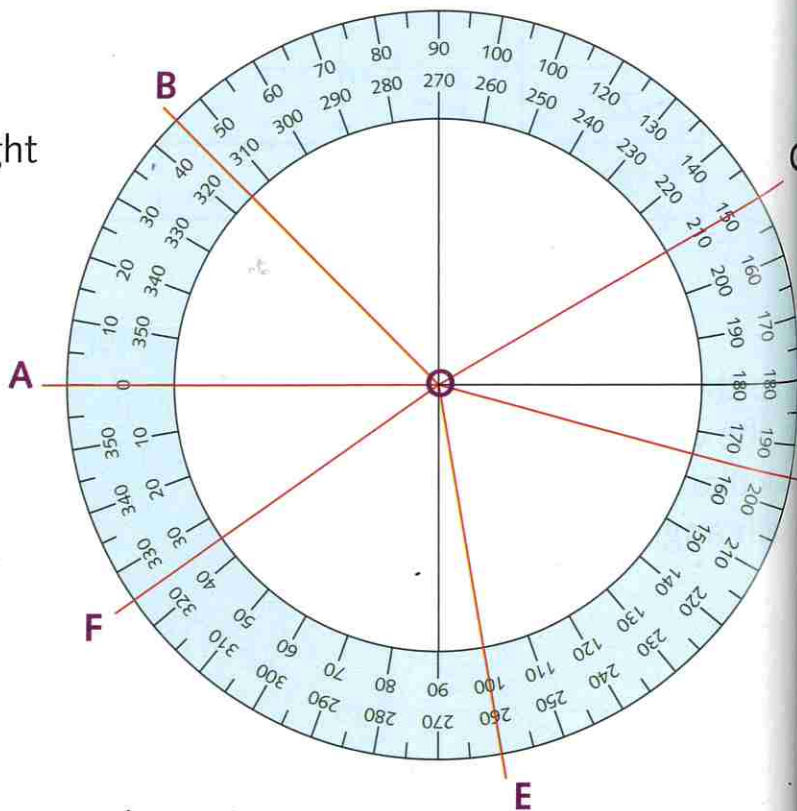
- Calculate its size in degrees.
- Write whether it is acute, right or obtuse.

- |                       |                       |
|-----------------------|-----------------------|
| <b>a</b> $\angle AOB$ | <b>b</b> $\angle BOC$ |
| <b>c</b> $\angle COD$ | <b>d</b> $\angle DOE$ |
| <b>e</b> $\angle FOA$ | <b>f</b> $\angle AOC$ |

2 Name the angle that measures:

- |                      |                      |
|----------------------|----------------------|
| <b>a</b> $100^\circ$ | <b>b</b> $130^\circ$ |
| <b>c</b> $195^\circ$ | <b>d</b> $145^\circ$ |

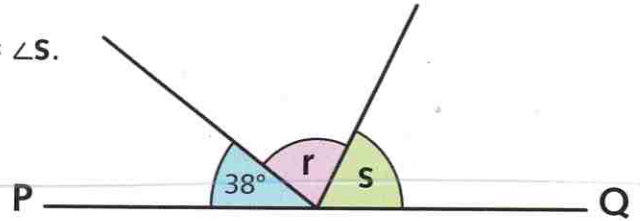
3 Find the difference between  $\angle AOC$  and  $\angle BOC$ .



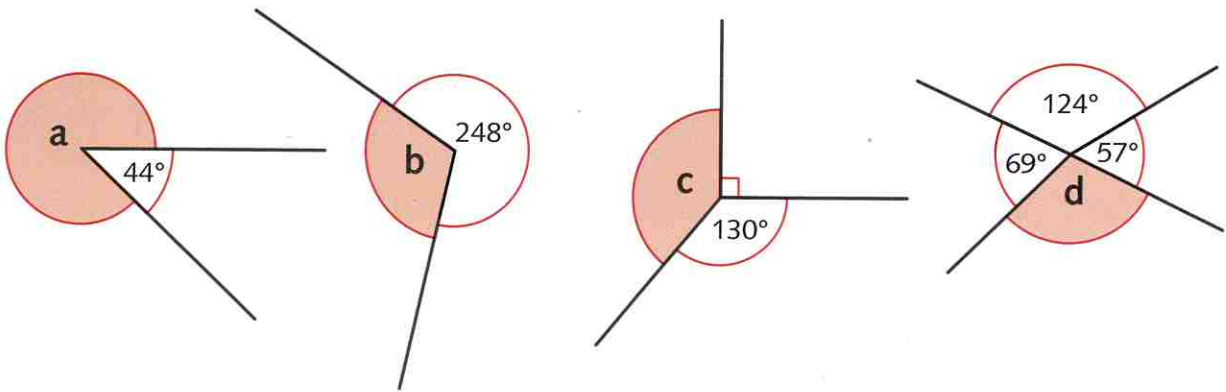
4 PQ is a straight line.

a Calculate the size of  $\angle r$  and  $\angle s$  when  $\angle r = \angle s$ .

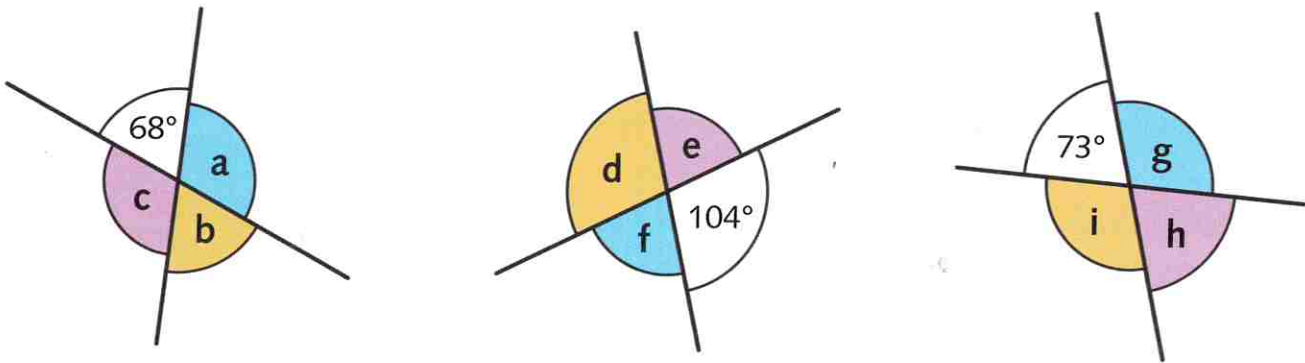
b Calculate the size of  $\angle s$  when  $\angle r = 38^\circ$ .



5 Name and calculate the size of each shaded angle that meets at a point.



6 Calculate the missing angles a to i in these diagrams of pairs of intersecting straight lines.



Measure each acute angle then calculate the reflex angle.

You will need:

- ruler
- protractor

