Warm Up Challenge

1. Select the correct words from the box.

| right | reflex | acute | obtuse |

a) An angle less than 90° is ☐

b) An angle equal to 90° is ☐

c) An angle more than 90° and less than 180° is ☐
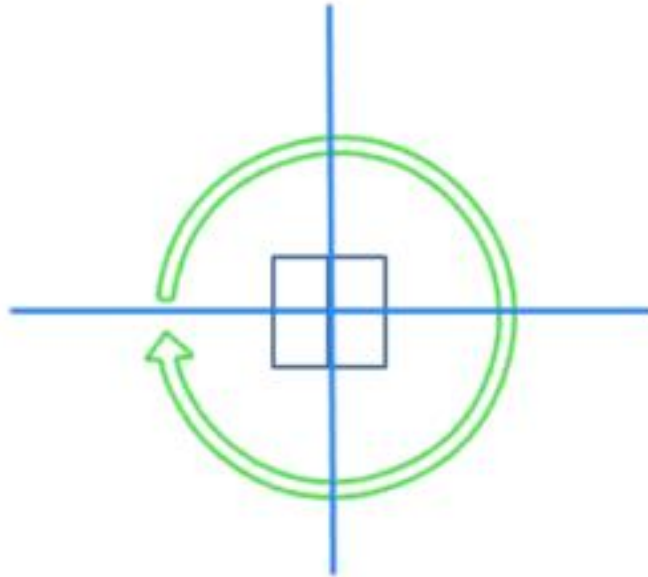
d) An angle greater than 180° and less than 360° is ☐

2. a) Angles at a point add up to ☐

b) Angles on a straight line add up to ☐

Whole turn

1 right angle is
90°

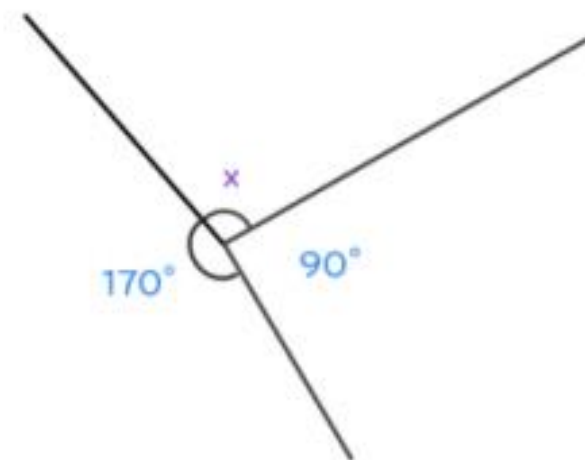A whole turn = 4 right angles.

How many degrees is a whole turn?

Missing angles

Find the missing angle.

Angles around a point add up to 360° .

You can use letters to represent the angles.

Let x stand for the **missing angle.**

To find the **missing angle** add the **given angles** and subtract the total from 360. So, you know:
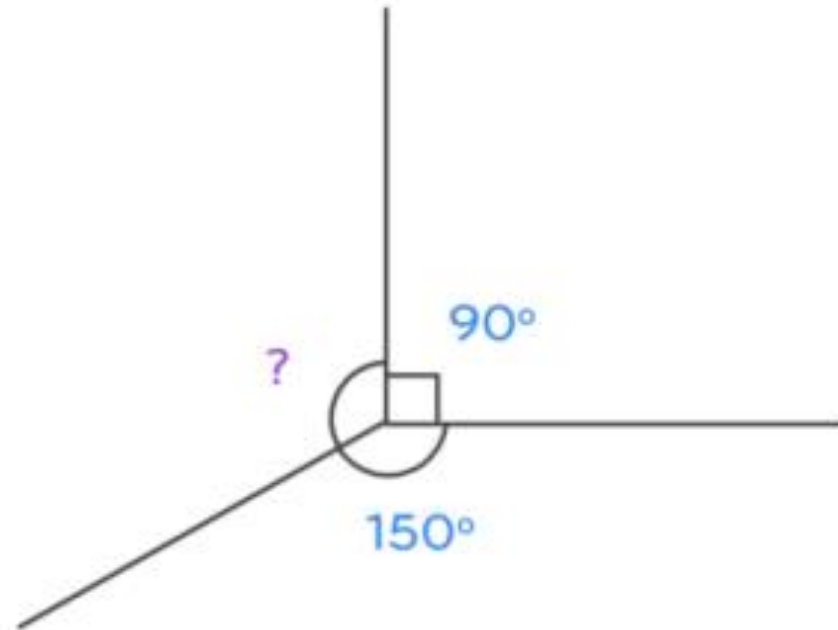
$$x = 360 - (170 + 90)$$

☐ = 360 − ☐   So, the missing angle measures ☐
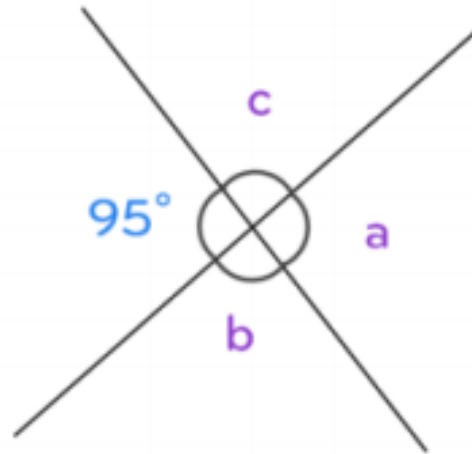
Missing angles

Find the missing angle.

Remember, angles around a point add up to 360°.

Missing angles

Vertically opposite angles are formed when two straight lines cross.

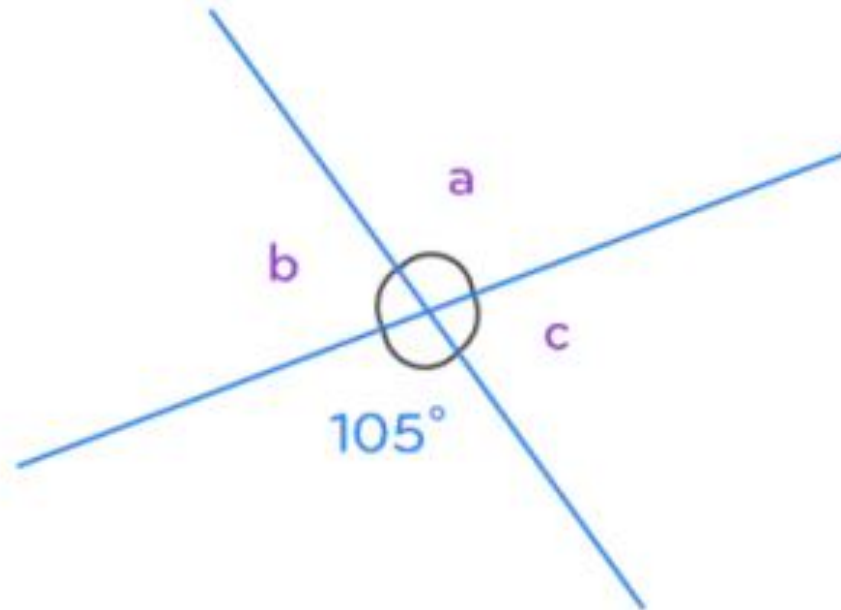You can also use vertically opposite angles to find missing angles.

95°   c   a   b

Vertically opposite angles are always equal.
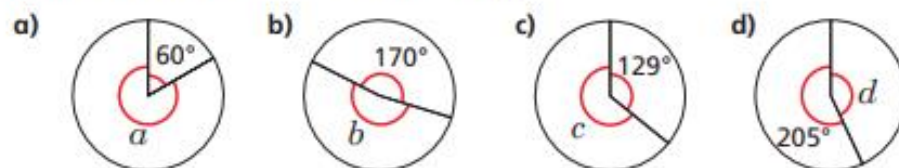
Angle a is vertically opposite a 95° angle. So, angle a =

Angle b = 180 – 95, so angle b =

Angle c is vertically opposite angle b. So, angle c =

Find the missing angles.

1 Work out the sizes of the unknown angles.
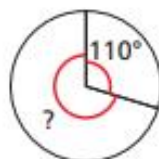
a)
60°
a

b)
170°
b

c)
129°
c

d)
205°
d

2 Ron turns clockwise through 110 degrees.

He continues to turn the same way.

He wants to turn to where he was facing at the start.

How many more degrees does he need to turn through?

110°
?

3 Work out the size of the unknown angles.

a)
145°
w

c)
y
240°

b)
70°
x

d)
265°
z

4 Work out the sizes of the unknown angles.

a)
130°
m
70°

b)
n
79°
175°

5 Ms Hall asks her class to draw an angle of 250 degrees.

My protractor only goes up to 180 degrees.

Amir

That's true. But I think we can still use it.

Alex

a) Explain why Alex is correct.

b) Draw an angle of 250 degrees.

Compare methods with a partner.

6 Work out the size of angle y.

190°
48°   65°
y