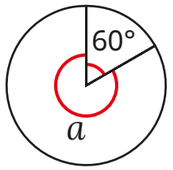
Calculate angles around a point

White Rose MATHS

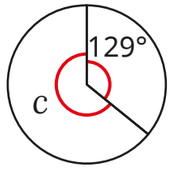
1 Work out the sizes of the unknown angles.

a)



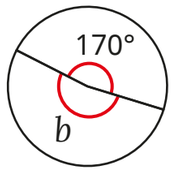
$a =$ ☐ °

c)



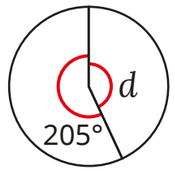
$c =$ ☐ °

b)



$b =$ ☐ °

d)



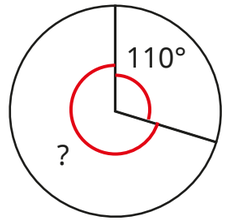
$d =$ ☐ °

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.

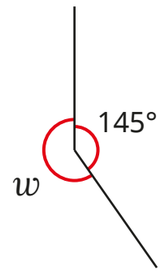
How many more degrees does he need to turn through?



☐ °

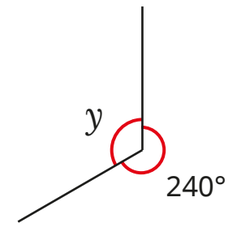
3 Work out the sizes of the unknown angles.

a)



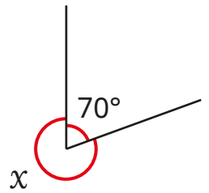
$w =$ ☐ °

c)



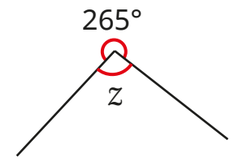
$y =$ ☐ °

b)



$x =$ ☐ °

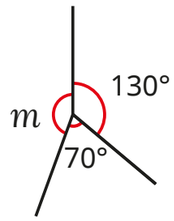
d)



$z =$ ☐ °

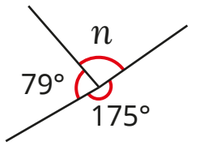
4 Work out the sizes of the unknown angles.

a)



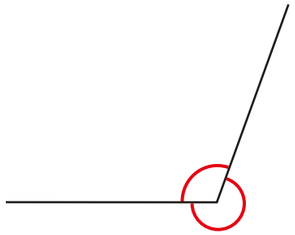
$m =$ ☐ °

b)



$n =$ ☐ °

5 A reflex and an obtuse angle are shown on the diagram.



The size of the reflex angle is 250 degrees.

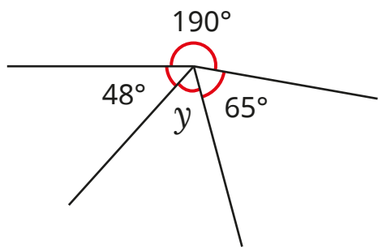
a) What is the size of the obtuse angle?

□ °

b) Use this to accurately draw an angle of 250 degrees.

Compare methods with a partner.

6 Work out the size of angle y.

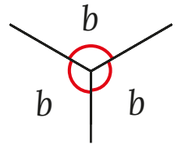


$y =$ □ °

7 Work out the sizes of the unknown angles.

Give reasons to support your answers.

a)

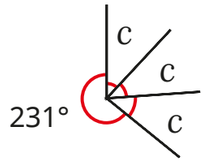


$b =$ □ ° because _____

_____

_____

b)

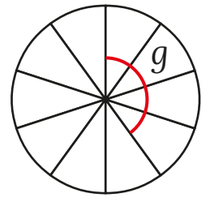


$c =$ □ ° because _____

_____

_____

8 A circle is divided into ten equal sections.



What is the size of the angle marked g?

$g =$ □ °