# Angles in Circles A

### Prior knowledge:

Terminology:

vertex/vertices

angle

circle

radius

diameter

perpendicular

circumference

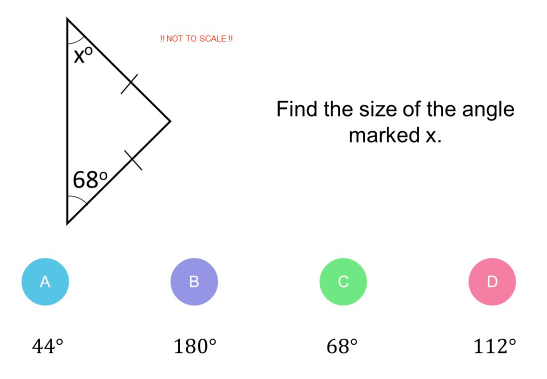
**Prior Knowledge:**

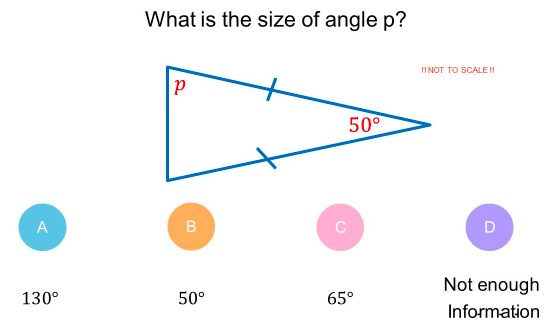
Draw a circle and a triangle and annotate to show each of the underlined words.

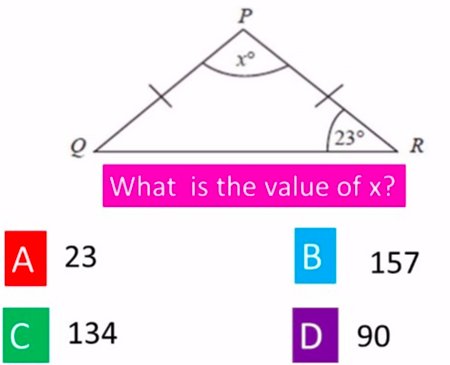
### If necessary: Quizlet learning: https://quizlet.com/\_4wypmk

### Prior knowledge:

To know angle rules related to isosceles triangles.







### Prior knowledge:

To describe angles using three vertices

### Activities:

Describe the following angles:

**B**

**A**

**C**

**O**

Yellow

Blue

Red

Green

Purple

Problem solving for those with secure prior knowledge:

<https://diagnosticquestions.com/Quizzes/Go#/87199>



**Aims:**

To know that triangles in a circle often have a special feature

### Activity:

O

B

A

For these lessons, O is always the centre of the circle.

What is the name of line OA?

What is the name of line OB?

What does this tell you about their lengths?

Therefore, what type of triangle is AOB?

### Aims:

To spot isosceles triangles and use them to find angles

### Activities:

Worksheet: Angles in Circles A section A

Some students share their work on the board, corrections if necessary.

### (Extension) Aims:

To add your own lines

### Activities:

Worksheet: Angles in Circles A section B

### Aims:

To be able to prove statements by giving angles with reasons

O

75o

33o

A

B

C

D

### Activities

Example:

Prove that

Worksheet: Angles in Circles A section C

Peer assessment using the solutions below.

Question 1

because the triangle is isosceles.

because angles in a triangle add up to .

OR

because angles in a triangle add up to and the triangle isosceles.

Question 2

because the triangle is isosceles.

because angles in a triangle add up to and the triangle isosceles.

because it is the previous two angles added together

Question 3

because the triangle is isosceles.

for the same reason

because it is the previous two angles added together

Question 4

because angles in a triangle add up to and the triangle isosceles.

angles around a point add to …

### Aims (extension):

To be able to add in your own lines in order to create isosceles triangles

### Activities:

Worksheet – Angles in Circles A - Adding in lines