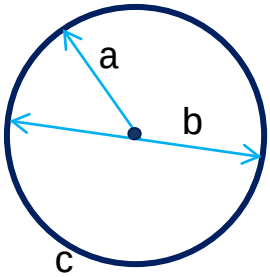
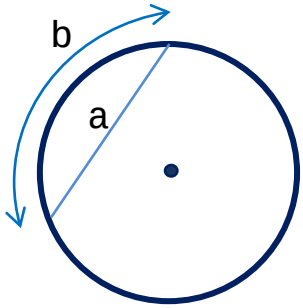
A

Name the lines a and b and curve c.



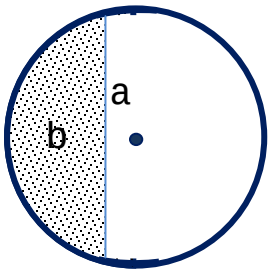
B

Name line a and curve b.



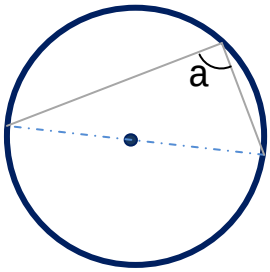
C

Name line a and section b.



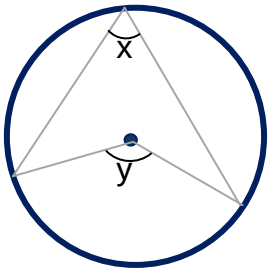
D

1. What is the size of angle a?
2. State the rule.



E

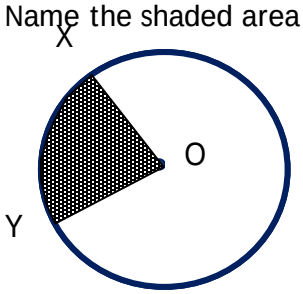
1. What do you know about angles x and y?
2. State the rule.



F

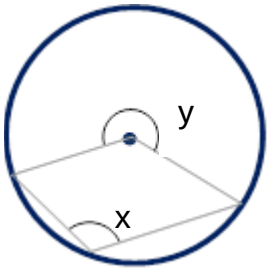
O is the centre of the circle.

1. Name lines OX and OY.
2. Name the shaded area.



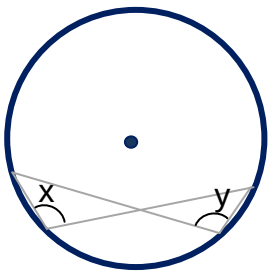
G

1. What do you know about angles x and y?
2. State the rule.



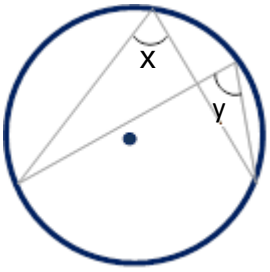
H

1. What do you know about angles x and y?
2. State the rule.



I

1. What do you know about angles x and y?
2. State the rule.



C

a. chord

b. segment (an area of the circle enclosed by a chord)

B

a. chord

b. arc (a section of the circumference subtended by an angle)

A

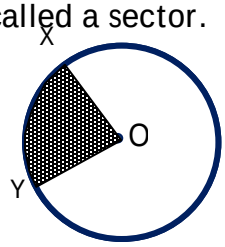
a. radius

b. diameter

c. circumference

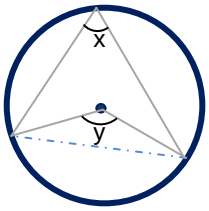
F

1. OX and OY are both radii (plural of radius).
2. The shaded area between them is called a sector.



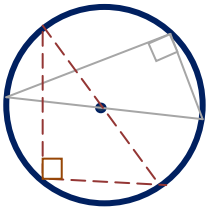
E

1. y = 2x
2. The angle at the centre of a circle is twice the angle at the circumference.



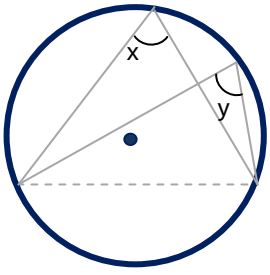
D

1. a = 90°
2. The angle in a semicircle is 90°.



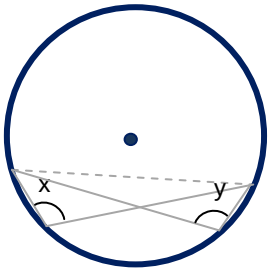
I

1. y = x
2. Angles in the same segment are equal.



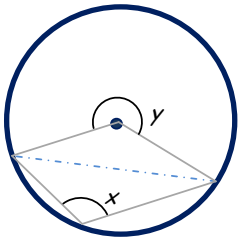
H

1. y = x
2. Angles in the same segment are equal.



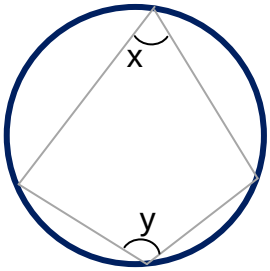
G

1. y = 2x
2. The angle at the centre of a circle is twice the angle at the circumference.



J

1. What do you know about angles x and y?
2. State the rule.

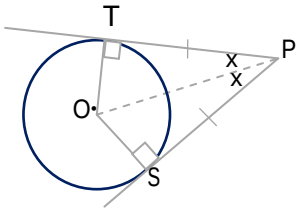


K

1. What is a tangent?
2. What angle does it make with a radius?

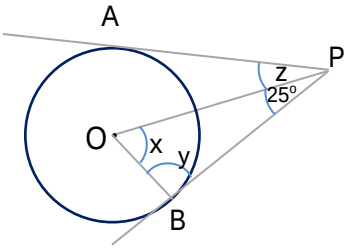
L

1. What do you know about lines PT and PS?
2. Describe OP's relationship to PT and PS.



M

Work out the size of angles x, y and z.

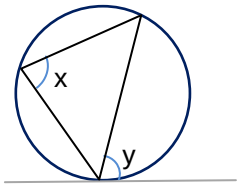


N

Explain the alternate segment theory.

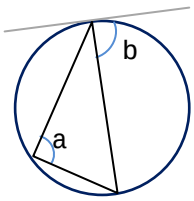
O

1. What do you know about angles x and y?
2. State the rule.



P

1. What do you know about angles a and b?
2. State the rule.



Q

1. What is a cyclic quadrilateral?
2. State the rule for angles in a cyclic quadrilateral.

R

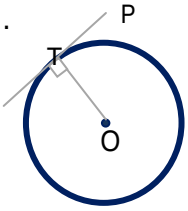
Aside from circle theorems, suggest some other angle rules you may need to know when given a question on angles in circles.

L

1. TP and SP are tangents. They are the same length.
2. OP bisects lines TP and SP.

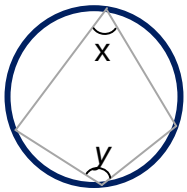
K

1. A tangent is a straight line which touches the circumference of a circle at just one point.
2. It makes a right angle with the radius at that point.



J

1. x + y = 180°



2. The opposite angles of a cyclic quadrilateral sum to 180˚

O

1. x = y
2. This is the alternate segment theorem.

N

The alternate segment theory states that …

The angle between a tangent and a chord is equal to the angle made by the same chord in the alternate segment.

M

z = 25° (AP and BP are tangents. OP bisects angle APB.)

y = 90°(The tangent to a circle is perpendicular to the radius.)

x = 65°(Angles in a triangle sum to 180°.)

R

Angles in a triangle sum to 180˚.

Vertically opposite angles are equal.

Parallel line rules:

- corresponding angles are equal
- alternate angles are equal
- (co-)interior angles sum to 180˚.

Q

A cyclic quadrilateral is one in which all four vertices touch the circumference of a circle.

The opposite angles sum to 180°

P

1. a = b
2. This is the alternate segment theorem.

Teaching notes

This pack contains 18 flash cards (nine per double-sided sheet).

Print or photocopy the sheets back to back, so that the questions match up with the answers on the other side.

Students could be given their own cards, in which case colour-coding could be useful, they could then add notes, or make extra cards for the pack.

Cards can be used for independent revision or a 'test' with a friend asking the questions.