

Circle Theorems

Week 12

Lesson Time : 30 - 35 Minutes

Course : Higher

Grade : 6/7

Back to Basics

Core

Let's Do It!

GCSE Revision Video 58

- **Prior Checklist:** A pack of A5/A6 revision cards.

A pen.

- **Our Video Structure:**

Back to Basics: Quick re-cap.

Core: *Create* your own revision cards with exam style questions.

Let's Do It! : *Apply* your revision cards to another set of exam style questions.

Instructions: **Print out** this worksheet and watch the revision video simultaneously.

Pause and Play the video unlimited times to review your work and write the answers in the blank spaces. Once you have written your answers, check these with the tutorial answers, as explained in the video.

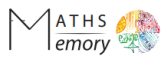
Create your OWN revision cards when prompted on the worksheet (Back to Basic and Core sections).

Apply your OWN revision cards (Let's Do It! section).

Self Assess yourself (Out of 10) on your revision planner after you have completed the revision video.

WATCH this revision video and **MANY** others on our **FULL** courses at www.mathsmemory.co.uk

Let's get started and create our Master revision card with this suggested template.



Maths Memory

Learn:

- 8 Circle Theorems
- Apply in context

Topic: Circle Theorems
Date/week: _____

Step 3



Step 2



Step 1



Example(s):

GRADE
6/7

Back to Basics- Starter questions to warm you up



Back to Basics

Topic: Circle Theorems

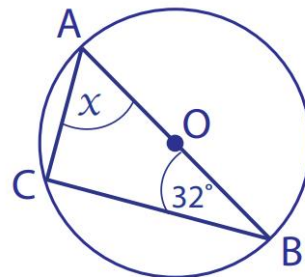
Question 1

AOB is a diameter, centre O. Points ABC are on the circumference.

Angle ABC = 32° .

$x =$ _____

Reason: _____



Question 2

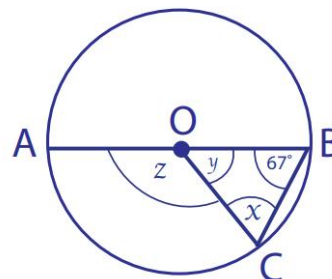
AOB is a diameter, centre O. Points ABC are on the circumference.

Angle ABC = 67° .

$x =$ _____ Reason: _____

$y =$ _____ Reason: _____

$z =$ _____ Reason: _____

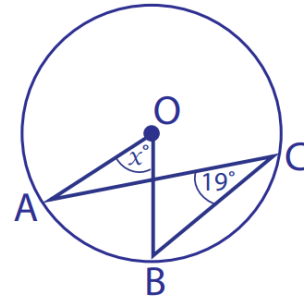


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Question 3

O is the centre of the circle.
 A, B, C are points on the circumference of a circle.
 Angle ACB = 19° .

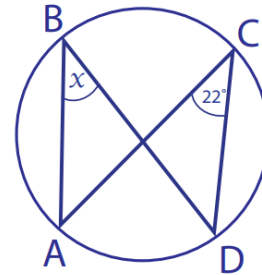
$x =$ _____
 Reason: _____



Question 4

A, B, C, D are points on the circumference of a circle.
 Angle ACD = 22° .

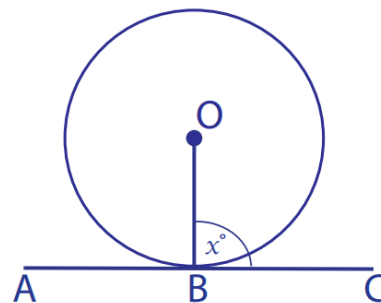
$x =$ _____
 Reason: _____



Question 5

O is the centre of the circle.
 ABC is a tangent to the circle.

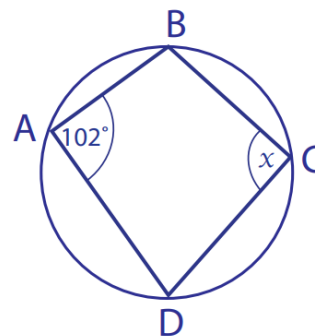
$x =$ _____
 Reason: _____



Question 6

A, B, C, D are points on the circumference of a circle.
 Angle DAB = 102° .

$x =$ _____
 Reason: _____

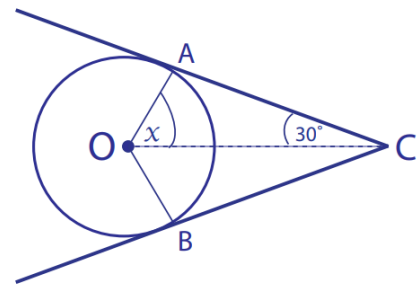


Question 7

AC and BC are tangents to the circle, centre O.
Angle ACO = 30° .

$x =$ _____

Reason: _____

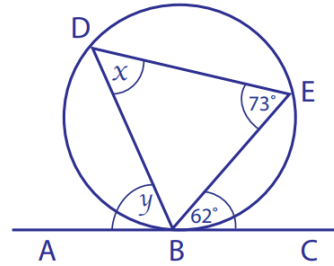


Question 8

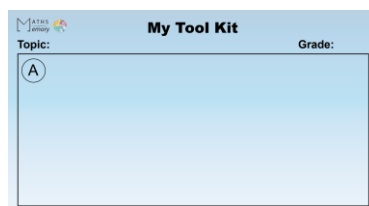
D, B, E are points on the circumference of a circle.
ABC is a tangent to the circle.
Angle DEB = 73° . Angle EBC = 62° .

$x =$ _____ Reason: _____

$y =$ _____ Reason: _____



Let's get our revision card and create Section A. Look at video for guidance.



Core- Create your revision cards with these exam style questions



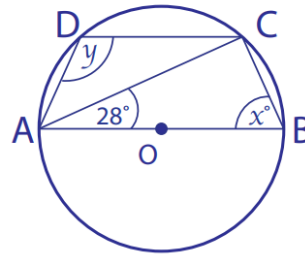
Core 1

Topic: Circle Theorems

Question 1

a) ABCD are points on the circumference, centre O.
AOB is a diameter of a circle. Angle CAB = 28° .

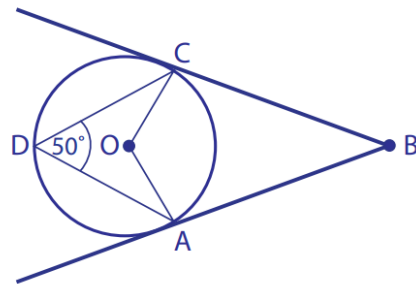
- i) $x =$ _____ Reason _____
ii) $y =$ _____ Reason _____



Grade
6 (2 Marks)

b) ACD are points on the circumference, centre O.
AB and CB are tangents. Angle ADC = 50° .

- i) Angle AOC = _____ Reason _____
ii) Angle ABC = _____ Reason _____
iii) Angle CAB = _____ Reason _____



Grade
6 (3 Marks)

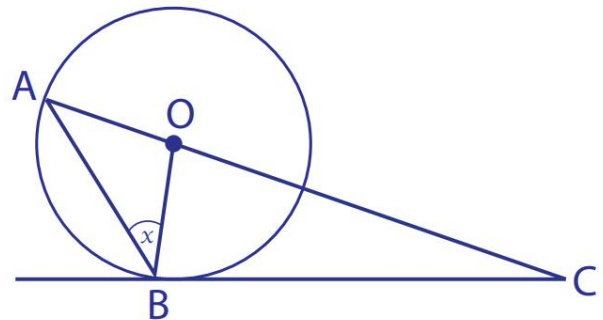


Core 2

Topic: Circle Theorems

Question 2a

AB are points on the circumference, centre O.
BC is a tangent. AOC is a straight line.
Angle ABO = x . Find angle ACB in terms of x .



Grade
6 (3 Marks)



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Question 2b

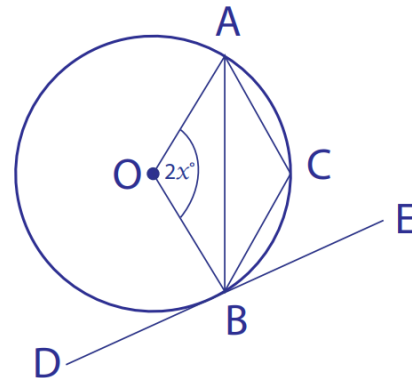
ABC are points on the circumference, centre O.

AB is a chord. Angle AOB = $2x$.

DBE is a tangent.

a) Find angle OBA in terms of x .

b) Find angle ACB in terms of x .



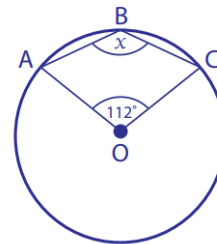
Grade

6 (3 Marks)

Question 3a

ABC are points on the circumference, centre O.

a) Find angle x



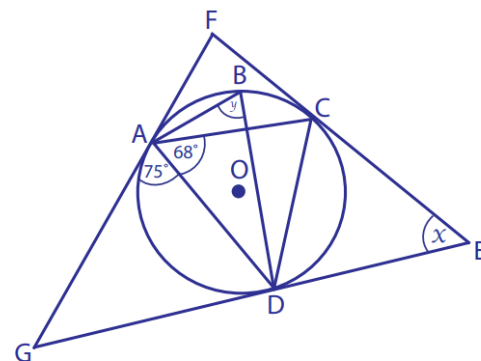
Question 3b

ABCD are points on the circumference.

GDE is a tangent. GAF is a tangent. FCE is a tangent.

a) Find angle x

b) Find angle y



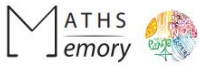
Grade

6 (2 Marks)

Grade

7 (4 Marks)

Let's Do It! - Apply your revision cards to another set of exam style questions



Let's Do It !

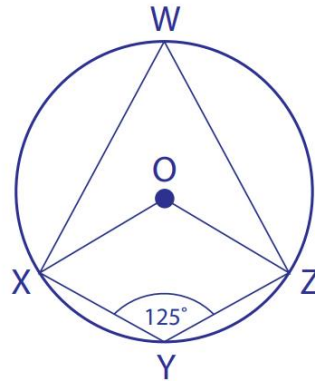
Topic: Circle Theorems

Question 1

WXYZ are points on the circumference, centre O.

Angle XYZ = 125° . XY = YZ

Find angle XOZ. Show your working.



Grade

6 (2 Marks)



Let's Do It !

Topic: Circle Theorems

Question 2

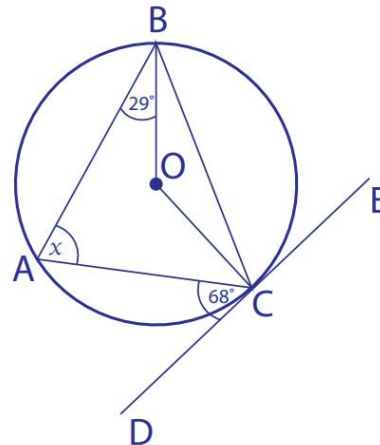
ABC are points on the circumference, centre O.

DCE is a tangent to the circle.

Angle ABO = 29° .

Angle DCA = 68° .

Find angle BAC. Show your working.



Grade

6 (3 Marks)



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Question 3

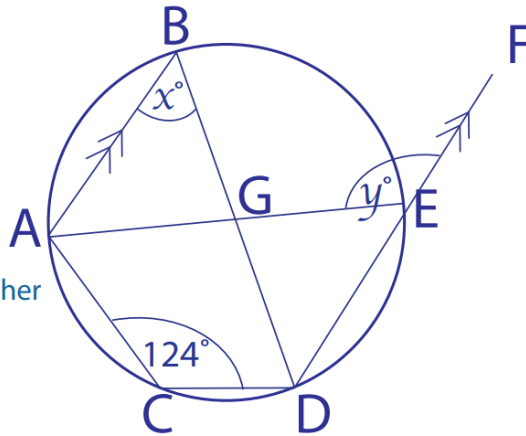
ABCDE are points on the circumference.

Angle $ACD = 124^\circ$. DEF is a straight line.

a) Find angle x

b) Find angle y

c) Given AB and EF are parallel to each other prove that G represents the centre of the circle.



Grade

7 (5 Marks)

Congratulations. You have completed this topic.

Now go back to your revision planner and rate yourself out of 10.