Year 9 sets 2a and 2b w/c Monday 29th June. Circles

Dear Year 9,

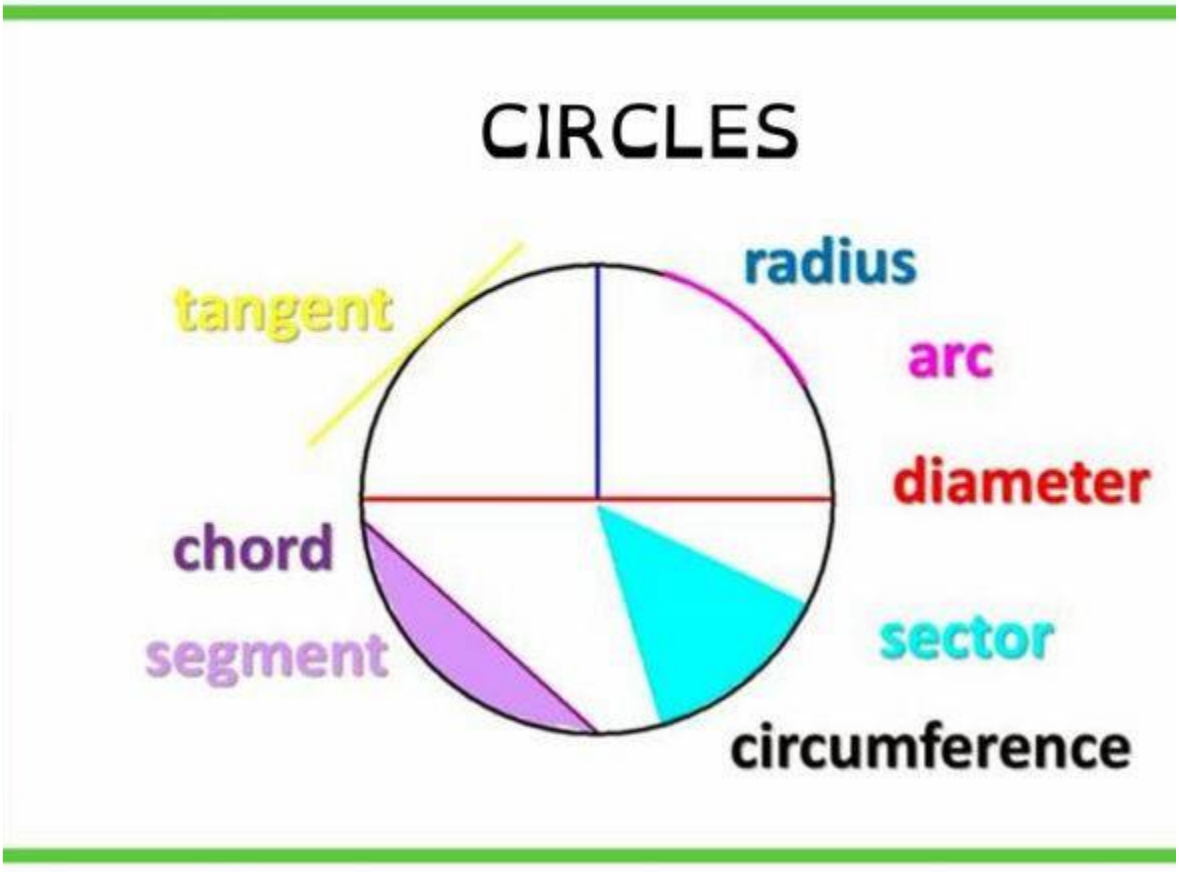
How are you? Hope you ve managed to stay cool this week!

Did you manage to work out the maths behind the magic? Check out the document called 'simple break down of Dom's magic trick to see how he did it!

I am really pleased with how hard you have all been working; it will really pay off when we return! We continue with the GCSE scheme of work; this week we are focusing on **circles**, building on what you learnt in the Spring term this year. You have some vocab to learn, some questions to complete in your book and 2 MathsWatch assignments and linked videos. All work is due for Sunday 5th July please. Please make sure that you try your best on every task, keep up to date and remember that I am always here and happy to help!

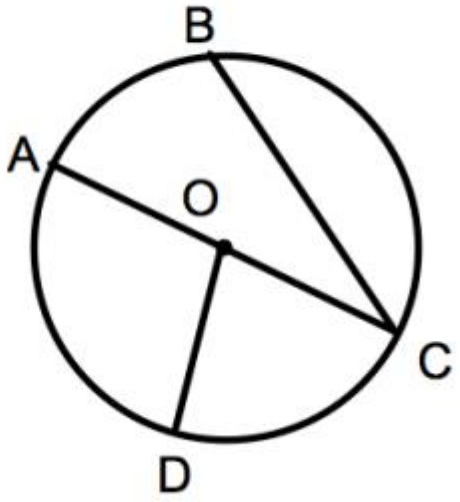
Task 1:

Copy the key circle vocabulary into your books, you may wish to create a revision card or poster to help you LEARN them.



Now check you understand by completing the question below in your books (you can either neatly copy the diagram and questions or print out and glue in ☺

Points A, B, C and D are four points on the circle with centre O.



Here are six words that are used with circles.

Arc **Diameter** **Chord** **Tangent** **Circumference** **Radius**

Choose the correct word to describe each line below.

(a) The straight line AC is a ..... of the circle.

(1)

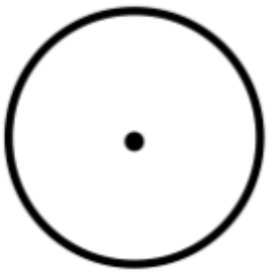
(b) The straight line OD is a ..... of the circle.

(1)

(c) The straight line BC is a ..... of the circle.

(1)

(d) Draw a sector of the circle below.



(1)

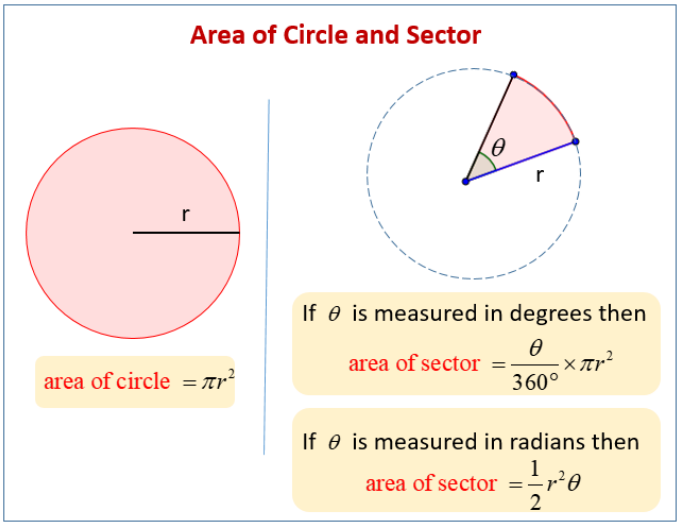
Task 2: area of circles and sectors

Remember that the area (A) of a circle is found by multiplying π by the radius (r) squared

$$A = \pi r^2$$

If you have part of a circle (a sector) you must find the area of a whole circle with the same radius and then multiply this total by the fraction of the circle you have.

Log on to MathsWatch and complete the assignment on area of circles and sectors, watch the linked videos first.

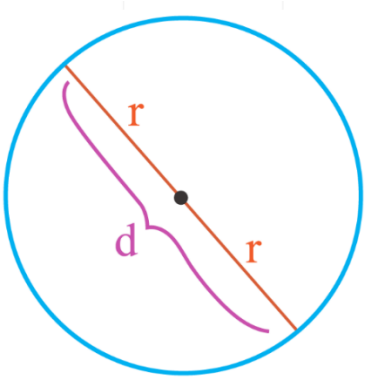


Task 3: circumference of circles and sectors

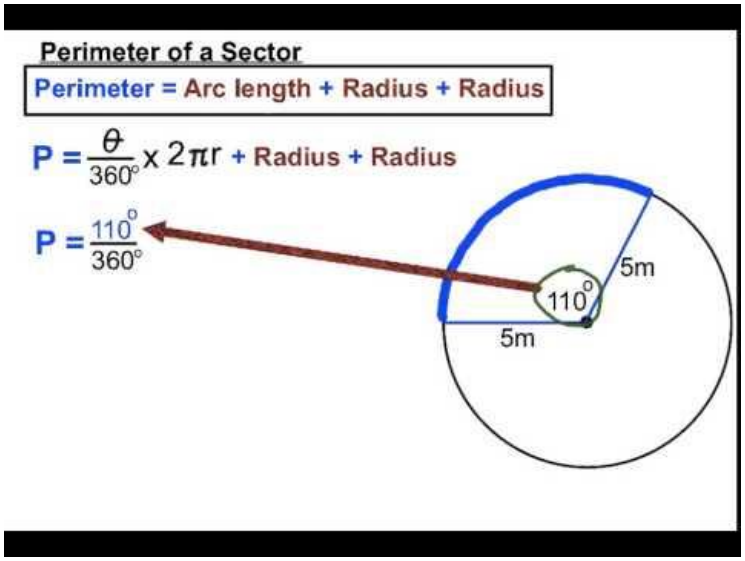
Remember that the circumference (C) of a circle is found by multiplying the diameter (d) by π

$$C = \pi d$$

Since the diameter is twice the radius (r), you may sometimes see the formula written as $C = 2r\pi$



$$C = 2\pi r$$
or
$$C = \pi d$$



If you have part of a circle (a sector) you must find the arc length and then add on the 2 radiuses.

To find the arc length you must find the circumference of a whole circle with the same diameter and then multiply this total by the fraction of the circle you have.

Log on to MathsWatch and complete the assignment on circumference of circles and sectors, watch the linked videos first.

Well done year 9!

Have a great week, stay safe!

Best wishes,

Mrs Todd ☺