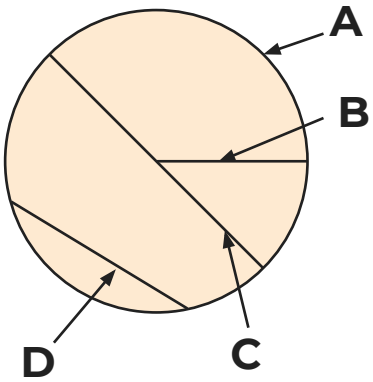
Maths

Know the parts of a circle

Miss Parnham

Know the parts of a circle

1. Complete the table to identify the labelled parts of the circle.



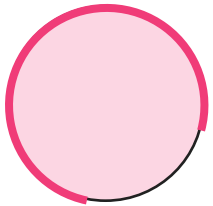
	chord
	circumference
	diameter
	radius

2. Complete this table.

Radius	7 mm		8.2 m	
Diameter		25 cm		1.9 m

3. Jack says that diagram 1 does not show an arc, as it is longer than half of the circumference and all arcs should look similar to that in diagram 2.

Diagram 1



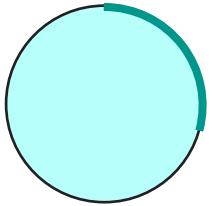


Diagram 2

Rosie disagrees, she says that an arc is any part of the circumference, so both diagrams show arcs.

Who is right?

Know the parts of a circle

4. Use the definitions to draw and shade sketches of a sector and a segment.

SECTOR

The area bounded by two radii and an arc.

SEGMENT

The area bounded by a chord and an arc.

5 a) The diameter of circle A intersects the circumference at (5, 2) and (9, 0). What are the coordinates of the centre?

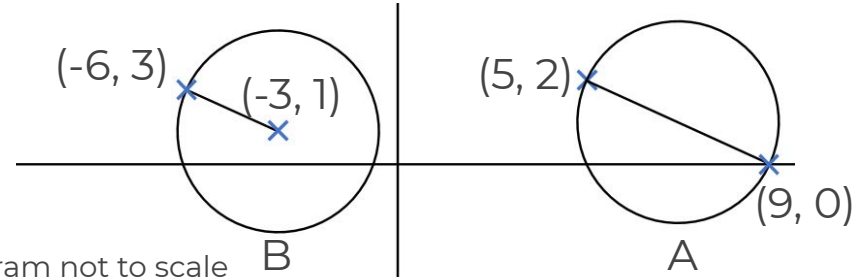


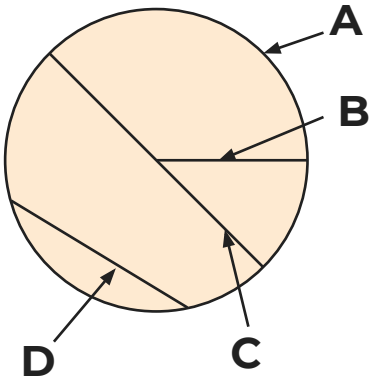
Diagram not to scale

b) The centre of circle B is (-3, 1) with a radius drawn to the point (-6, 3). If it is extended to a diameter, where else will this intersect the circumference?

Answers

Know the parts of a circle

1. Complete the table to identify the labelled parts of the circle.



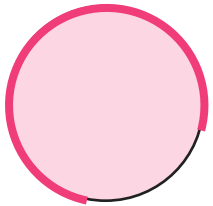
D	chord
A	circumference
C	diameter
B	radius

2. Complete this table.

Radius	7 mm	12.5 cm	8.2 m	0.95 m
Diameter	14 mm	25 cm	16.4 m	1.9 m

3. Jack says that diagram 1 does not show an arc, as it is longer than half of the circumference and all arcs should look similar to that in diagram 2.

Diagram 1



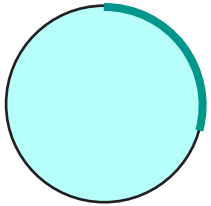


Diagram 2

Rosie disagrees, she says that an arc is any part of the circumference, so both diagrams show arcs.

Who is right? Rosie, arcs are any portion of the circumference.

Know the parts of a circle

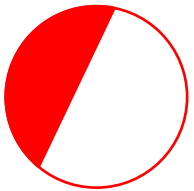
4. Use the definitions to draw and shade sketches of a sector and a segment.

SECTOR

The area bounded by two radii and an arc.

SEGMENT

The area bounded by a chord and an arc.



5. a) The diameter of circle A intersects the circumference at (5, 2) and (9, 0). What are the coordinates of the centre?

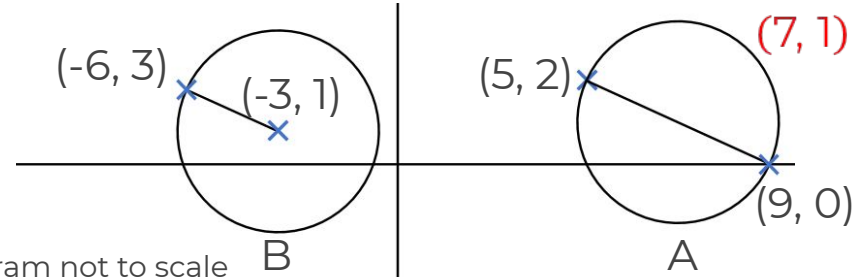


Diagram not to scale

b) The centre of circle B is (-3, 1) with a radius drawn to the point (-6, 3). If it is extended to a diameter, where else will this intersect the circumference? (0, -1)