Lesson 77 MIXED

Constructing circles and exploring their parts

WHAT THIS LESSON TEACHES

The distance from the centre of a circle straight out to the edge is the radius. Every radius of the same circle is the same length.

→ A compass opened to 5 cm draws a circle with a radius of 5 cm.
→ A radius of 5 cm gives a diameter of 10 cm.

MODEL THIS ON THE BOARD

CONSTRUCT A CIRCLE WITH RADIUS 6 CM

1. Open your compass to 6 cm from the point to the pencil.
2. Place the point on the paper and draw the circle all the way round.
3. Mark the centre point and draw one radius line from centre to edge.

ANSWER KEY

Scaffold: visual check on the page

Q1: circle radius 3 cm

Q2: circle r=5cm + chord

a) Always — All radii reach the same distance from centre to edge.

b) Never — A chord does not touch the centre.

c) Always — The diameter is one radius plus another radius.

d) Never — Only a compass circle keeps all radii equal.

EXTENSION SHEET · STRETCH ANSWERS

S1: radius, 5 cm

S2: 3 cm

S3: 3 concentric circles, radii 3/5/7 cm

S4: 4.6 cm

S5: 20 cm