

Circles 1 – “A triangle which is drawn with one vertex at the centre of a circle and the other two vertices on the circumference is isosceles, because two of its sides are radii”

Applet: <http://www.waldomaths.com/Circle6NLW.jsp>

Video: <http://www.waldomaths.com/video/CircIsos01/CircIsos01.jsp>

Questions (NB. None of these diagrams are to scale, so measuring angles won't help!)

- 1 In diagram A, $\triangle OAB$ has been shaded. It is an isosceles triangle. See how many more isosceles triangles you can find.
- 2 In diagram B calculate all the angles marked a – f.

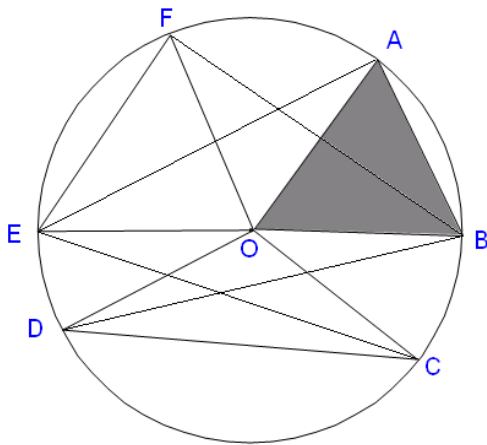


Diagram A

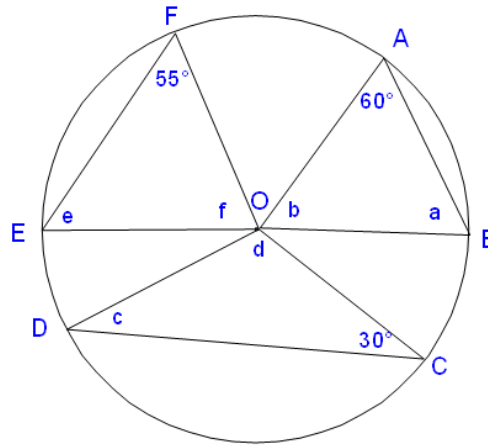


Diagram B

- 3 In diagram C, calculate the sizes of the angles marked g, h, j.
- 4* In diagram D, calculate angle k. [You will need to calculate other angles first]

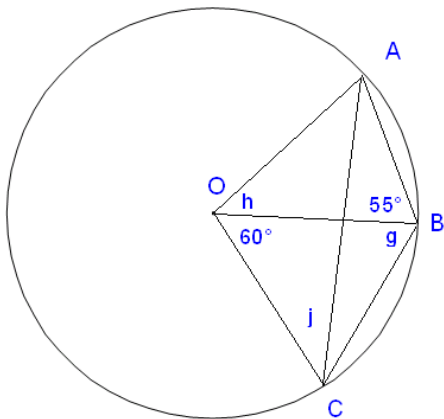


Diagram C

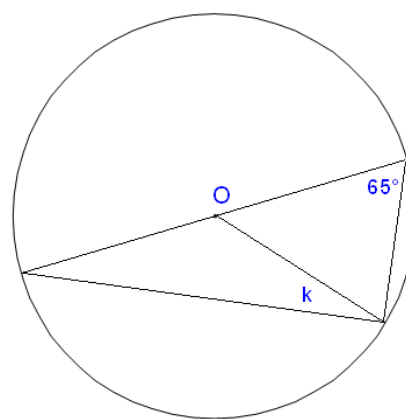


Diagram D

Answers: 1 7 ($\triangle OAB$, $\triangle OFB$, $\triangle OAE$, $\triangle OEF$, $\triangle OCD$, $\triangle OBD$, $\triangle OCE$)

2 a = 60° , b = 60° , c = 30° , d = 120° , e = 55° , f = 70°

3 g = 60° , h = 70° , j = 25° 4* k = 25°