Name:

QUIZ 23 – MATH IB HL

1. (18%) Complete the table **with exact simplified results**:

α (Deg)	α (Rad)
–120	
225	
330	
–40	
	$\dfrac{7\pi}{12}$
	2.3 (Answer should be given as an expression)

2. (17%) Given that the radius of the circle is 4 m and the minor arc AB is 1 m, find the angle x in radians and degrees, **round the angle in degrees to the nearest degree**. Diagram not to scale.
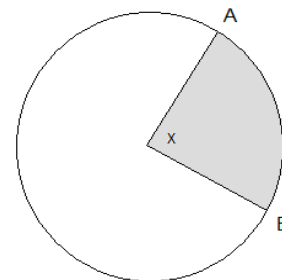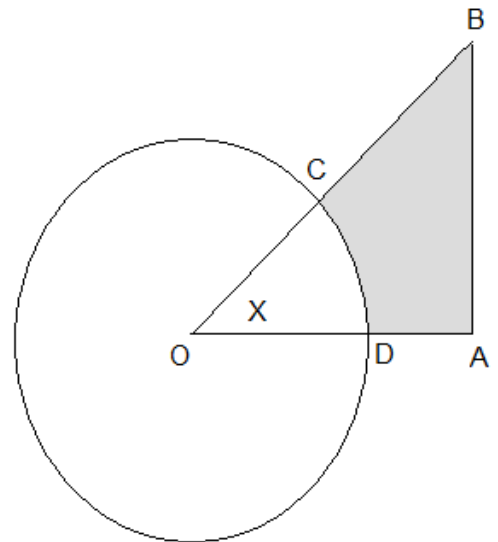
3. (30%) Given that the length of the Arc AB is 1 cm and that area shaded is 1 cm². Find the angle x in radians and the radius of the circle.
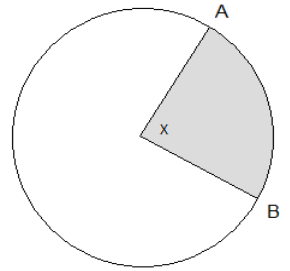
4. (35%) Given that the angle x is $\dfrac{\pi}{6}$ radians. The radius of the circle is 10 cm and point C is the centre of the segment OB. Diagram not to scale. Find (exact answers only):

   a. (20%) The area shaded

   b. (15%) The perimeter of the area shaded