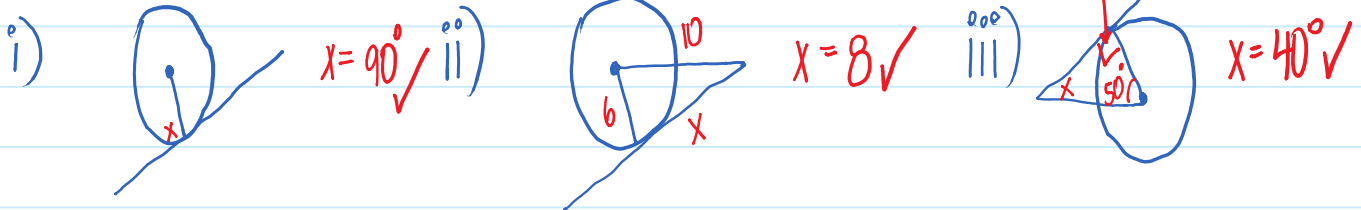


U5L4 Circles: Chord Properties

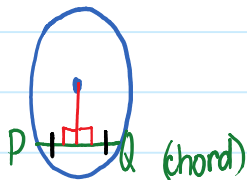
April-13-15 10:31 AM

(A) Review



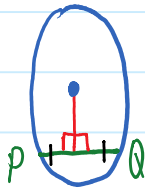
(B) Circles: Chord Props

Property #1: The perpendicular (right angle line) from the centre of a circle to a chord bisects the chord.

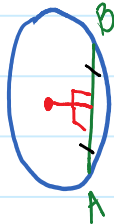


↓
* means cuts in half equally

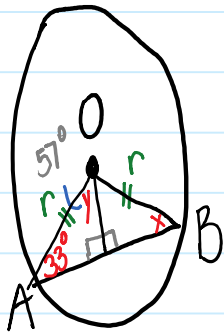
Property #2: The perpendicular bisector of a chord in a circle passes through the center of the circle.



Property #3: A line that joins the centre of a circle and the midpoint of a chord is perpendicular to the chord.



ex 1)

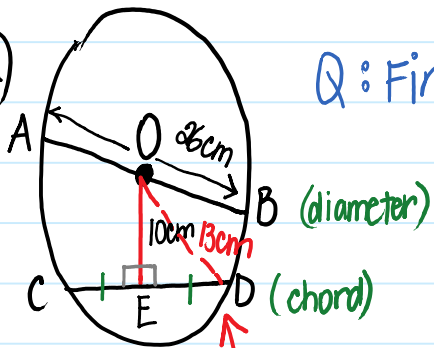


Q: Find x & y .

$$A: y = 180 - 90 - 33 = \boxed{97^\circ}$$

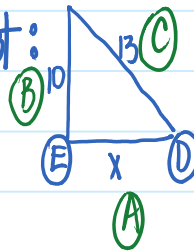
$$x = \text{isosceles } \triangle \therefore \boxed{x = 33^\circ}$$

ex 2)



Q: Find length of chord CD.

Find ED first:



$$c^2 - b^2 = a^2$$

$$13^2 - 10^2 = x^2$$

$$169 - 100 = x^2$$

$$69 = x^2$$

$$\boxed{8.3 = x}$$

* draw in a radius to fill in right \triangle

$$\text{Find CD: } 8.3 + 8.3 = \boxed{16.6 \text{ cm}}$$

Assignment USL4 WKST #3A, 4A, 5B, 6, 7D / 6mks