

TRIGONOMETRY AND THE UNIT CIRCLE

WORKSHEET

1. Fill the blanks below about what is unit circle

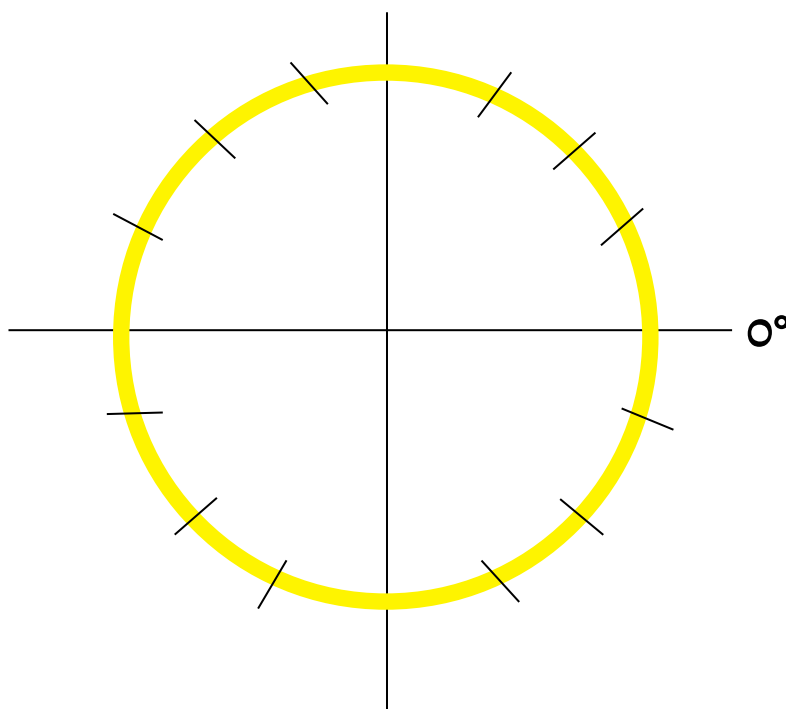
The unit circle is a circle of radius _____ that is centered at

_____ when placing angle on the unit circle, we began at the

_____ with _____ and continued around the circle in a

_____ direction.

2. Label the angle that are multiples of 30° and 45° on the unit circle below. Fill all the four quadrant.



3. Sketch -120° in the unit circle in the standard position. Label the initial and terminal sides.

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Answer the below question

4. Given the point $P = (-\sqrt{3}/2, 1/2)$ that lies on a unit circle and corresponds to the angle θ

Find the exact value of $\sin \theta$

5. Give the exact value of $\operatorname{cosec}(-210^\circ)$

6. Give the exact value of $\cos(350^\circ)$

7. Give the exact value of $\tan(90^\circ)$

8. Give the exact value of $\cot(4\pi/3)$

9. Convert 120° into radian

10. Convert 510° into radian

11. What is the reference angle of 189°

12. Give the exact value of $\sin(210^\circ)$

13. Give the exact value of $\cos(\pi/3)$

14. Give the exact value of $\cot(-5\pi/4)$
