

NO CALCULATOR WARM UP

1) Fill in the table to show your understanding of converting radians to degrees and degrees to radians. Then determine which quadrant or axis the angle lies.

RADIANS	DEGREES	WHERE AM I?
$\frac{3\pi}{10}$	54°	I
$5\pi/6$	150°	II
$\frac{7\pi}{6}$	210	III
$-\frac{3\pi}{2}$	270°	+y
$-\frac{11\pi}{6}$	-330°	I
$\frac{4\pi}{3}$	240°	III

Find the value of each. Try not to use your flashcards.

$$2) \sin \frac{\pi}{3} = \frac{\sqrt{3}}{2}$$

$$3) \cos 45^\circ = \frac{1}{\sqrt{2}}$$

$$4) \tan \frac{\pi}{4} = 1$$

$$5) \cos 60^\circ = \frac{1}{2}$$

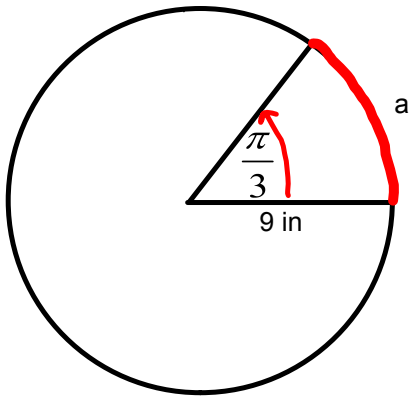
$$6) \tan \frac{\pi}{6} = \frac{1}{\sqrt{3}}$$

$$7) \sin 30^\circ = \frac{1}{2}$$

$$8) \tan 60^\circ = \sqrt{3}$$

Use the circle to find the length of the indicated arc.
Round your answer to the nearest tenth.

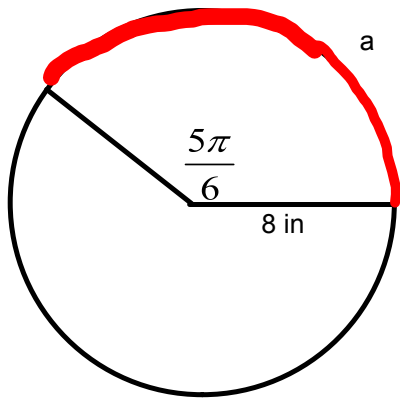
→ Arc Length = *Radians* • *Radius*



$$a = \frac{\pi}{3} \cdot 9 = \boxed{9.4 \text{ in}}$$

Use the circle to find the length of the indicated arc.
Round your answer to the nearest tenth.

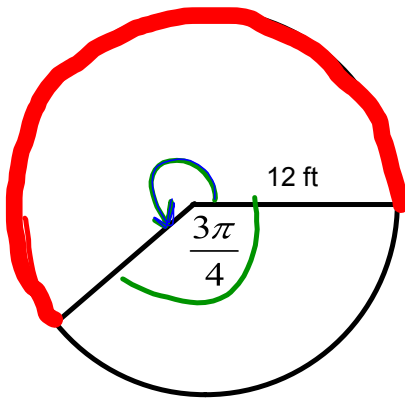
→ Arc



$$\frac{5\pi}{6} \cdot 8 = 20.9 \text{ in}$$

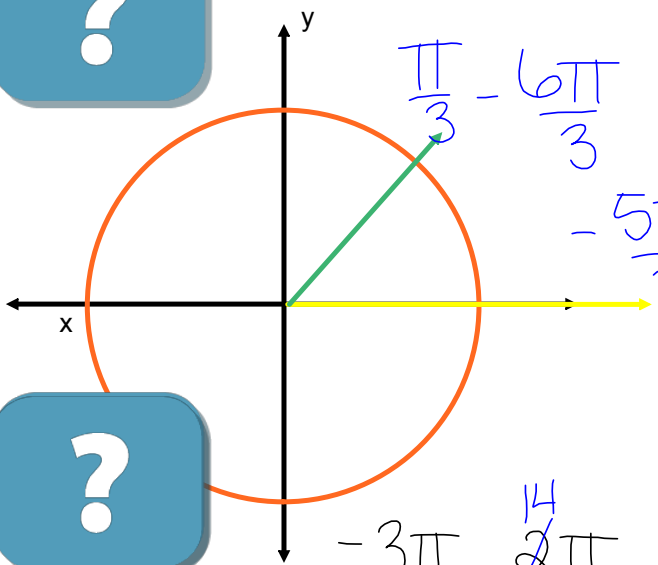
Use the circle to find the length of the indicated arc.
Round your answer to the nearest tenth.

→ Arc Length = *Radians* • *Radius*



$$\frac{2\pi}{1} - \frac{3\pi}{4} = \frac{5\pi}{4} \cdot 12 = \boxed{47.1 \text{ ft}}$$

Find one positive and one negative coterminal angle for each.



$$\frac{\pi}{3} + \frac{2\pi}{13}$$



$$-\frac{3\pi}{7} + \frac{14\pi}{7}$$

$$\frac{11\pi}{7}, -\frac{17\pi}{7}$$

$$-\frac{3\pi}{7}$$

$$-\frac{5\pi}{2} + \frac{4\pi}{12}$$

$$\boxed{-\frac{\pi}{2}}$$

$$-\frac{\pi}{2} + \frac{4\pi}{2} = \boxed{\frac{3\pi}{2}}$$

$$-\frac{3\pi}{7} - \frac{14\pi}{7}$$

GO COUGARS!



HW 13.3
Part 2

p. 729 #20-25 all, 60-61
and
WB pg 82 #26-30

13.3 Radian Measure.gsp