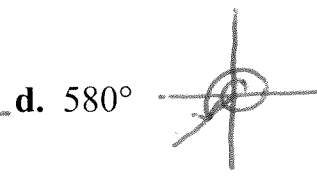
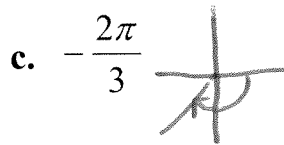
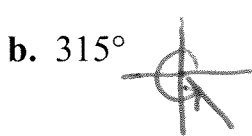
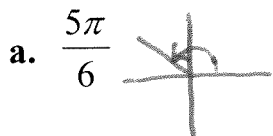


Review 4.1-4.3: No Calculators will be allowed on Quiz

1. Sketch the following angles in Standard Position.



2. Convert each angle to degrees.

a. $\frac{3\pi}{2}$ 270°

b. $\frac{7\pi}{6}$ 210

c. $-\frac{11\pi}{3}$ -660°

d. $\frac{7\pi}{4}$ 315°

$3(\frac{150^\circ}{2}) = 3(75^\circ)$

3. Convert each angle to radians.

a. 90° $\frac{\pi}{2}$

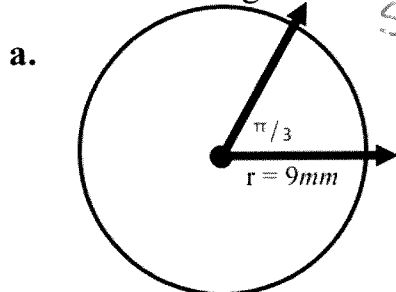
b. 330° $\frac{11\pi}{6}$

c. -135° $-\frac{3\pi}{4}$

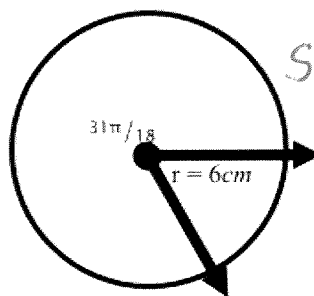
d. 600° $\frac{10\pi}{3}$

$\frac{10}{180} \leftarrow \pi$

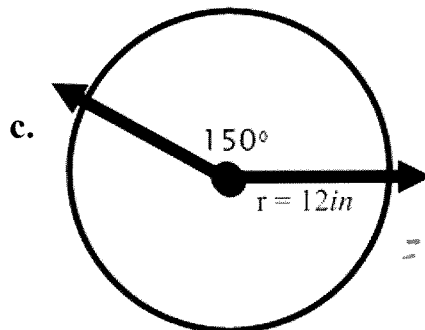
4. Find the arc lengths.



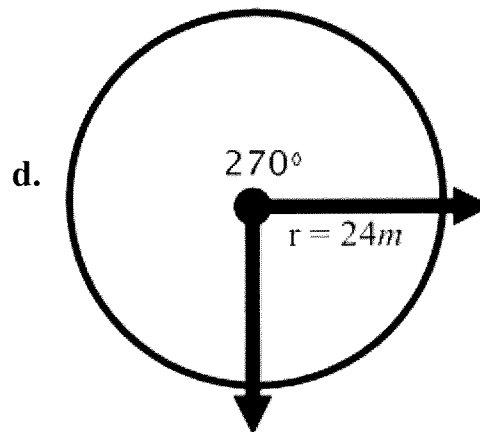
$S = r\theta$
 $9 \cdot \frac{\pi}{3} = 3\pi \text{ mm}$



$S = 6 \cdot \frac{3\pi}{18} = \frac{3\pi}{3} \text{ cm}$



$150^\circ = \frac{5\pi}{6}$
 $\frac{5\pi}{6} \cdot 12$
 $= 10\pi \text{ in}$



$270^\circ = \frac{3\pi}{2}$
 $S = \frac{3\pi}{2} \cdot 24$
 $= 36\pi \text{ m}$

Use the value of the given function to evaluate the remaining ones.

5. $\cos(\theta) = \frac{7}{8}$

a. $\cos(-\theta) = \frac{7}{8}$
even

b. $\sec(\theta) = \frac{8}{7}$

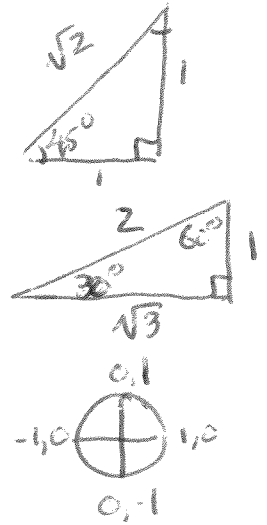
6. $\tan(-\theta) = -\frac{5}{4}$

a. $\tan(\theta) = \frac{5}{4}$
odd

b. $\cot(-\theta) = \frac{4}{5}$

7. Complete the chart.

Degrees	0°	30°	45°	60°	90°	180°
Radians	0	$\pi/6$	$\pi/4$	$\pi/3$	$\pi/2$	π
$\sin \theta = y$	0	$1/2$	$\sqrt{2}/2$	$\sqrt{3}/2$	1	0
$\cos \theta = x$	1	$\sqrt{3}/2$	$\sqrt{2}/2$	$1/2$	0	-1
$\tan \theta = \frac{y}{x}$	0	$\sqrt{3}/3$	1	$\sqrt{3}$	u	0



8. Find the following trig values.

a. $\cos(60^\circ) = \frac{1}{2}$

b. $\sin(\frac{\pi}{4}) = \frac{\sqrt{2}}{2}$

c. $\tan(360^\circ) = 0$

d. $\cos(\frac{2\pi}{3}) = -\cos \frac{\pi}{3} = -1/2$



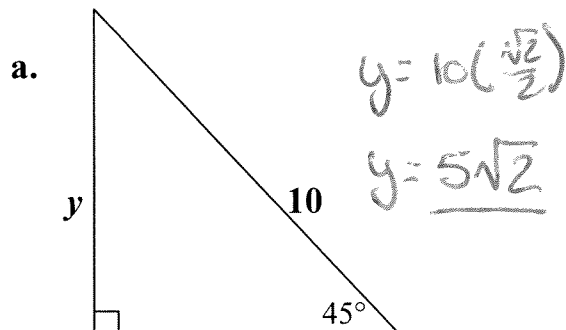
e. $\sin(225^\circ) = -\sin 45^\circ = -\frac{\sqrt{2}}{2}$

f. $\cos(\frac{11\pi}{6}) = \cos \frac{\pi}{6} = \frac{\sqrt{3}}{2}$

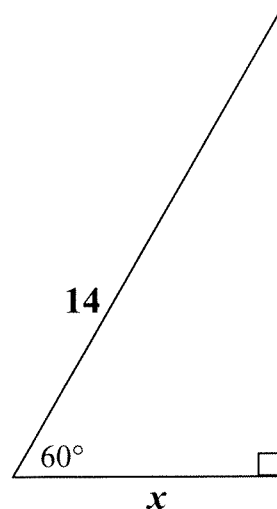
g. $\cot(\frac{3\pi}{4}) = -\cot(\frac{\pi}{4}) = -1$
 $-\frac{1}{\tan \frac{\pi}{4}}$

h. $\csc(330^\circ) = -\csc 30^\circ = -2$
 $-\frac{1}{\sin 30^\circ}$

9. Find x & y. Show your work.



b.



$\cos 60^\circ = \frac{x}{14}$
 $14 \cos 60^\circ = x$
 $14(\frac{1}{2}) = 7$

$\sin 45^\circ = \frac{y}{10}$ $10 \sin 45^\circ = y$