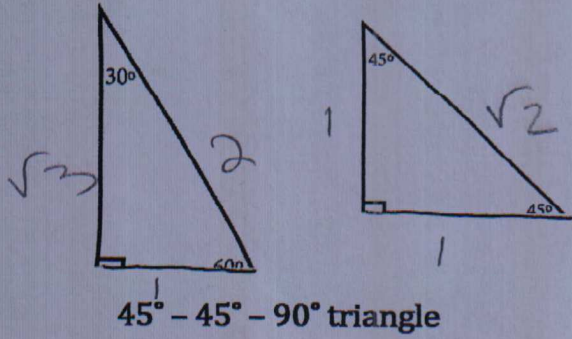


Use the special right triangles to fill out the following tables.



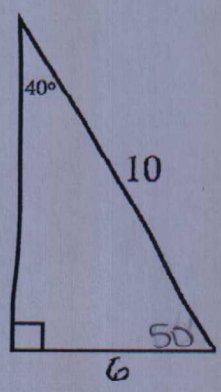
45° - 45° - 90° triangle

leg	2	3	5	4
hypotenuse	$2\sqrt{2}$	$3\sqrt{2}$	$5\sqrt{2}$	$4\sqrt{2}$

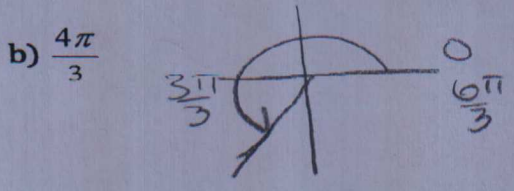
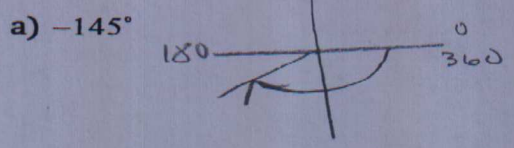
30° - 60° - 90° triangle

short leg	3	4	2	
long leg	$3\sqrt{3}$	$4\sqrt{3}$	$2\sqrt{3}$	
hypotenuse	6	8	4	10

Solve the triangle below. Make sure to give all necessary information.



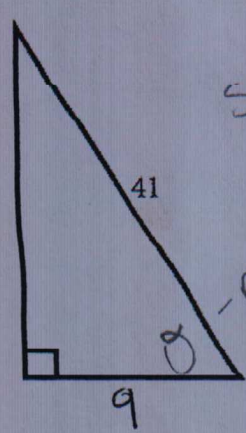
Draw the following angles.



Using your special right triangles, give exact values for each of the trig functions.

	sin	cos	tan	csc	sec	cot
30°	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{3}}$	2	$\frac{2\sqrt{3}}{3}$	$\sqrt{3}$
45°	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{2}}{2}$	1	$\sqrt{2}$	$\sqrt{2}$	1
60°	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$	$\frac{\sqrt{3}}{3}$	$\frac{2\sqrt{3}}{3}$	2	$\frac{1}{\sqrt{3}}$

Give the 6 trig functions for the triangle. Make sure you reduce the fractions if necessary!



Solve for x
 $x=40$

-pick theta

$\sin \theta = \frac{40}{41}$ $\csc \theta = \frac{41}{40}$
 $\cos \theta = \frac{9}{41}$ $\sec \theta = \frac{41}{9}$
 $\tan \theta = \frac{40}{9}$ $\cot \theta = \frac{9}{40}$

Convert the following.

(From radians \rightarrow degrees or from degrees \rightarrow radians).

a) 235°

$$235 \cdot \frac{\pi}{180} = \frac{47\pi}{36}$$

b) $\frac{7\pi}{6}$

$$\frac{7\pi}{6} \cdot \frac{180}{\pi} = 210^\circ$$