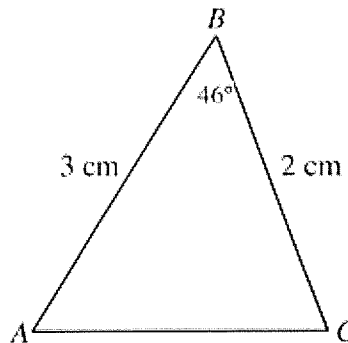


Algebra 2 Ch. 13 Practice Test - Part II - Calculator and Notecard Allowed

1. Convert $\frac{2}{3}\pi$ to degrees.

3. Find the area of $\triangle ABC$. *The figure is not drawn to scale.*



2. A circular lawn is divided into *six equal* sectors. The radius of the lawn is 40 feet.

a. What is the measure of the central angle of one sector of the lawn in degrees and radians?

Area = _____

b. Find the area of one sector of the lawn.

4. Solve the triangle in problem #3.

$\angle A =$ _____

$\angle C =$ _____

$b =$ _____

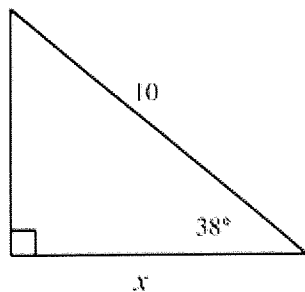
5. Solve $\triangle ABC$ with $B = 37^\circ$, $C = 104^\circ$, and $b = 7$.

$a =$ _____

$c =$ _____

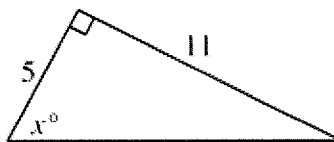
$\angle A =$ _____

6. Find x to the nearest hundredth.



$x =$ _____

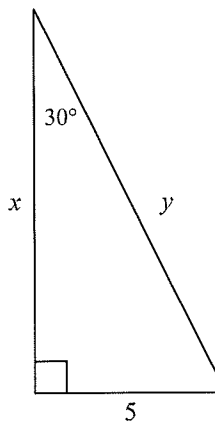
7. Solve for x to the nearest degree.



$x =$ _____

Find the values of x and y . Leave your answers in simplest radical form. NO DECIMALS!

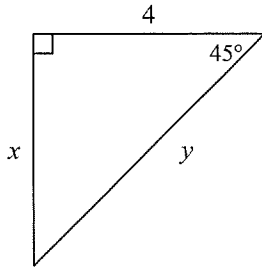
8.



$x =$ _____

$y =$ _____

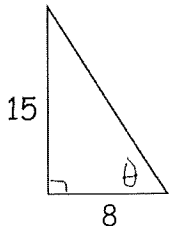
9.



$x = \underline{\hspace{2cm}}$ $y = \underline{\hspace{2cm}}$

Evaluate the six trigonometric functions of θ .

10.



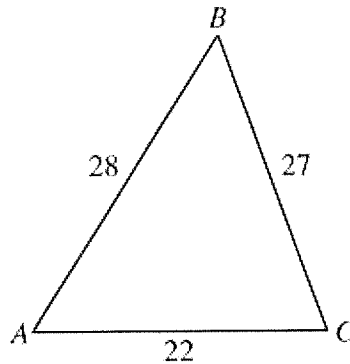
$\sin \theta = \underline{\hspace{2cm}}$ $\csc \theta = \underline{\hspace{2cm}}$

$\cos \theta = \underline{\hspace{2cm}}$ $\sec \theta = \underline{\hspace{2cm}}$

$\tan \theta = \underline{\hspace{2cm}}$ $\cot \theta = \underline{\hspace{2cm}}$

11. A hunter is 20 yards up in a tree stand. She looks down upon a grassy plain below and spots a deer. The angle of depression to the deer is 35° . How far is the deer from the base of the tree?

12. Find $\angle C$.



$\angle C = \underline{\hspace{2cm}}$

Name _____

Trig Practice Test Part 1

NO CALCULATOR OR NOTES!

Complete each part for each expression:

- A. Determine in which quadrant the angle θ lies.
- B. Determine the reference angle θ' . (Complete this part only if the angle is not in the first quadrant.)
- C. Find the indicated ratio for θ' . This must be an exact value. (Complete this part only if the angle is not in the first quadrant.)
- D. Determine the value for the original expression using the ASTC mnemonic.

1. $\sin 315$ A. _____ B. _____ C. _____ D. _____

2. $\tan \frac{2\pi}{3}$ A. _____ B. _____ C. _____ D. _____

3. $\cos \frac{5\pi}{6}$ A. _____ B. _____ C. _____ D. _____

4. $\sin \frac{4\pi}{3}$ A. _____ B. _____ C. _____ D. _____

5. $\cos 300$ A. _____ B. _____ C. _____ D. _____