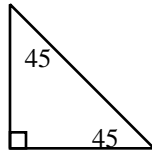
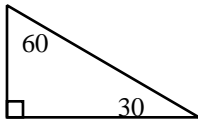
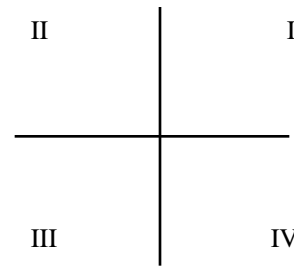


Math 181 Chapter 1 & 2 Name _____
Show your work to receive credit..

- I. 1. Write in possible sides for the triangles below.



2. Use the co-ordinate system below to show in which quadrants trig functions are positive



3. For point (x, y) making a angle θ in standard position and a radius of r . Make a sketch and find:

$\sin \theta =$ $\csc \theta =$

$\cos \theta =$ $\sec \theta =$

$\tan \theta =$ $\cot \theta =$

4. For a rt triangle ABC with C being the rt angle, sketch the triangle and find:

$\sin A =$ $\csc A =$

$\cos A =$ $\sec A =$

$\tan A =$ $\cot A =$

- II. If $\sin \theta = \frac{3}{5}$ and θ terminates in QII, find the value of the five other trig functions.

- III. Graph $x - 2y = 0$ and find the angle it makes with the x-axis.

- IV. Find the exact values for all six trig functions for the following angles.

1. $\theta = -45^\circ$

2. $\theta = 120^\circ$

V. Prove the following identities.

1. $\cos\theta \csc\theta \tan\theta = 1$

2. $1 - (\sin\theta - \cos\theta)^2 = 2\sin\theta \cos\theta$

VI. Use a calculator to find the following:

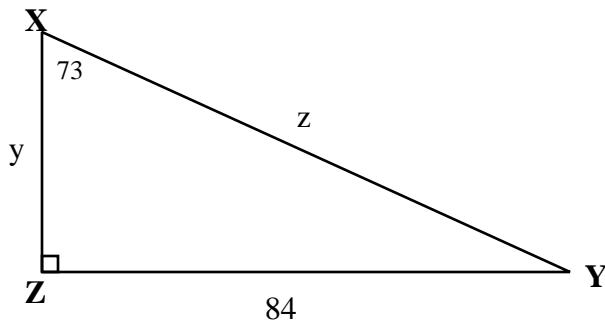
1. $\tan 52.6^\circ =$

2. $\sec 47^\circ =$

3. $\tan\theta = 1.735$ find θ .

4. $\sec\theta = 1.735$ find θ .

VII. Find the parts that are not given in the triangle below. $Y =$ _____, $z =$ _____, $y =$ _____



VIII. If from a point 96 feet from the bottom of a tree the angle of elevation to the top of the tree is 82° . Find the height of the tree.

IX. An airplane travels 185 miles on a bearing of 22° and then changes its course to $S68^\circ E$ and travels of another 166 miles.

1. Make a sketch of the flight of the plane.
2. How far from the start is the plane?
3. What is the bearing of the resultant vector (vector from starting point to ending point)?