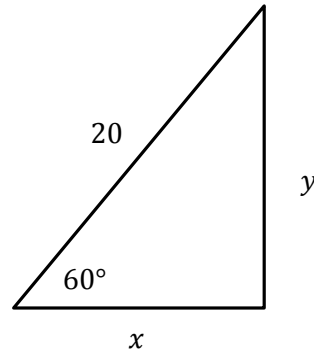
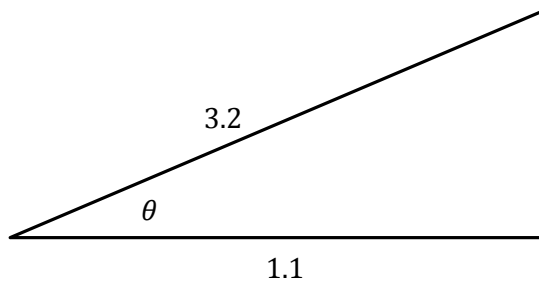


## Week 11 Math 1508 Worksheet

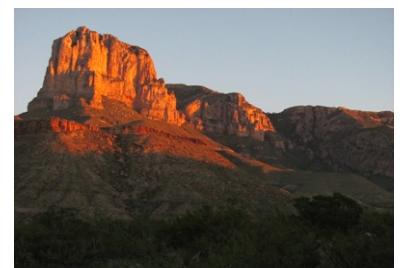
1. [sec 4.3] Find the exact values for  $x$  and  $y$



2. [sec 4.3] Find the exact values of the six trigonometric functions of the angle  $\theta$ .



3. [sec 4.3]: In traveling on U.S. highway 180/62 towards Carlsbad Caverns, you will notice Guadalupe peak [pictured on the right]. If you pull over at the nearest rest stop the angle of elevation (to the peak) is  $3.5^\circ$ . After driving 16.5 miles closer, the angle of elevation is  $9^\circ$ . Approximate the height of the mountain in feet. Is this a good estimation?



4. [sec 4.4]: Find the values of the six trigonometric functions of  $\theta$  with the given constraint.

a. Function Value:  $\tan \theta = -\frac{20}{21}$       Constraint:  $\sin \theta < 0$ .

b. Function Value:  $\csc \theta = \frac{25}{7}$       Constraint:  $\frac{\pi}{2} \leq \theta \leq \frac{3\pi}{2}$ .