

Name \_\_\_\_\_ Banner \_\_\_\_\_

**Fall 2007**

**Quiz #2**

**Precalculus**

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Show your work. Use proper notation. Think before you write or give up.  
Box your final answers. Write on this paper only. Do easy problems first.

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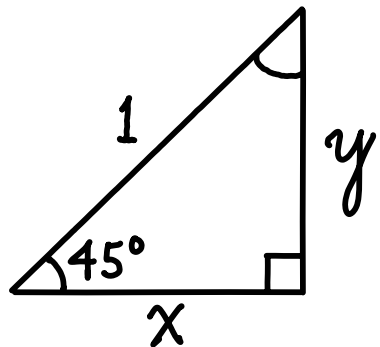
#1) Derive the Quadratic Formula (use proper mathematical notation).  
This means, prove that if  $a, b,$  and  $c$  are constants such that  $a \neq 0$ ,  
then  $ax^2 + bx + c = 0 \Leftrightarrow x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

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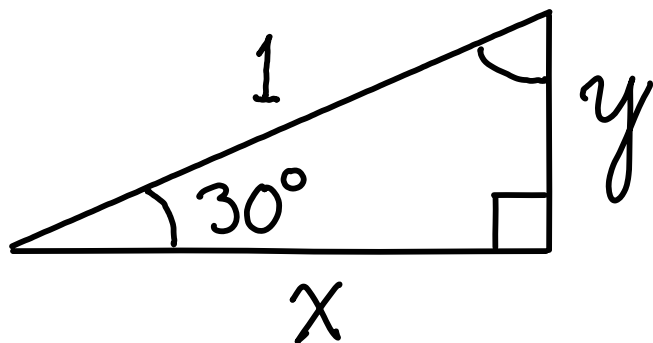
#2) Solve the following two triangles (use proper mathematical notation).  
This means, find all three angles in degrees and find the lengths of all three sides for both triangles.

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A)



B)



#3) Prove the Pythagorean Theorem. (Extra credit for a proof different from the one given in class)

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