**Show work in this document or a separate document.   
Hand written work & answers is preferred.**

# QUIZ Problems

**1.** If , and is in Quadrant IV, what is ? Do not use a calculator.



*c*

*a*

*b*

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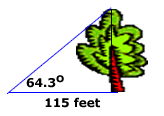
**2.** Find the exact value of each expression. Explain. Do not use a calculator.

(a)



(b)

**3.** From a point 115 feet from the base of a redwood tree, the angle of elevation to the top of the tree is 64.3°. Find the height of the tree to the nearest foot. Show work/explain.



**4.** If , find the other five trigonometric function values.



*c*

*a*

*b*

*t*

**5.** Use the Sum and Difference Identities or Half-Angle Identities to find the exact value.

(a) (Hint: , or ）



(b) (Hint: , or ）

**6.** Simplifying

**7.** Verifying the following identity:

**8.** Graph the given function in . State the period, amplitude, phase shift and vertical shift of the function. Describe the steps you take to graph the function. Computer generated graphs are not acceptable.

(a)

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(b)



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**9.** Show how to compute each of the following, exactly, without using calculators.

(a)

(b)

**10.** Find all of the exact solutions in . Answers using calculators will not be accepted.

(a)

(b)