

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

**Fall 2007**

**Quiz #1**

**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) Solve for  $x$ :  $x^2 + x = 8 - x$

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#2) Solve for  $x$ :  $2x^2 + 5x = -3$

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#3) Solve for  $x$  and  $y$ :  $2x + y = 7$        $y + 2x = 5y$

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#4) Expand  $(x+y)^6$  and  $(x-y)^6$

#5) Evaluate:    a)  $(3^2)^4$             b)  $3^2 \cdot 3^4$             c)  $3^{-2} \cdot (3^{-4})^{-1}$

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#6) Solve for  $x$  in terms of  $c_0, c_1,$  and  $c_2$ :  $c_2 x^2 + c_1 x + c_0 = 0$

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#7) What is the Fundamental Theorem of Algebra (In your own words)?

#8) What is the Fundamental Theorem of Arithmetic (In your own words)?

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#9) Graph:  $f(x) = 1 - x + \frac{x^2}{2}$

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#10) Reduce the fraction:  $\frac{\sqrt{x^2 + 2x - y^2 - 2y}}{\sqrt{x^2 - y^2}}$