

NAME:

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**MAC 1147**  
**Quiz One (Sample)**

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Please show all of your work in a NEAT and ORGANIZED fashion.

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1. (3 points) Simplify the following radical expression:

$$\sqrt[3]{16x^3yz^{10}}$$

2. (3 points) Perform the division and simplify:

$$\frac{x+3}{x^2+3x+2} \div \frac{x^2+4x+3}{x^2+4x+4}$$

3. (a) (1 point) Evaluate the following expression at  $x = -2$ :

$$3x^2 - 5x - 2$$

- (b) (2 points) Completely factor the following expression:

$$3x^2 - 5x - 2$$