

Name: _____

Date: _____

Course: _____

Nyack College

College Algebra

Preliminary Assessment #6

Directions: Make sure to show your work.

1. Solve each equation by factoring

a. $x^2 + 4x = 0$

b. $x^2 + 7x + 6 = 0$

Name: _____

Date: _____

Course: _____

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c. $26x^2 + 16 = 40x$

d. $\frac{5}{x+4} = 4 + \frac{3}{x-2}$

Name: _____

Date: _____

Course: _____

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2. Solve each equation by the square root method

a. $x^2 = 36$

b. $(3x - 2)^2 = 4$

Name: _____

Date:

Course: _____

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c. $(x + 2)^2 = 1$

d. $(2x + 3)^2 = 121$

Name: _____

Date: _____

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3. Solve each equation by completing the square method

a. $x^2 - 6x = 13$

b. $x^2 + \frac{2}{3}x - \frac{1}{3} = 0$

Name: _____

Date: _____

Course: _____

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c. $x^2 - 8x - 20 = 0$

d. $2x^2 - 3x - 1 = 0$

Name: _____

Date: _____

Course: _____

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4. Solve each equation by using the quadratic formula

a. $x^2 + 4x + 2 = 0$

b. $x^2 + 6x + 1 = 0$

Name: _____

Date:

Course: _____

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c. $2x^2 + 5x + 3 = 0$

d. $5x = 4x^2$