

**Foundations for College Algebra**  
**University of North Georgia**  
**Fall 2015**  
**Quiz #10**

Name: Key Date: November 11, 2015

Factor completely.

1.  $49x^2 - 81$       $a = 7x$   
                                $b = 9$

$(7x + 9)(7x - 9)$

$$49x^2 - 63x + 63x - 81$$

$$49x^2 - 81 \checkmark$$

2.  $y^2 - 1$       $a = y$   
                                $b = 1$

$(y + 1)(y - 1)$

$$y^2 - y + y - 1$$

$$y^2 - 1 \checkmark$$

**Solve by factoring**

3.  $x^2 - 11x + 24 = 0$       $ac = 24$

$$x^2 - 8x - 3x + 24 = 0$$

$$x(x - 8) - 3(x - 8) = 0$$

$$(x - 8)(x - 3) = 0$$

①  $x - 8 = 0$

$x = 8$

②  $x - 3 = 0$

$x = 3$

$$b = -11$$

|   |   |
|---|---|
| - | - |
| 8 | 3 |

$x = 8$

$$(8)^2 - 11(8) + 24 = 0$$

$$64 - 88 + 24 = 0$$

$$-24 + 24 = 0$$

$$0 = 0 \checkmark$$

$x = 3$

$$(3)^2 - 11(3) + 24 = 0$$

$$9 - 33 + 24 = 0$$

$$-24 + 24 = 0$$

$$0 = 0 \checkmark$$