

Topic: Solving**Quadratic Formula**

Level 2	Level 3	Level 4
Students will recognize or recall specific vocabulary such as: <i>Quadratic equation, quadratic formula</i> Students demonstrate they have developed the ability to: <ul style="list-style-type: none"> Solve quadratic equations in one variable using: <ul style="list-style-type: none"> Zero Product Property Factoring 	Students demonstrate they have developed the ability to: <ul style="list-style-type: none"> Solve quadratic equations in one variable using: <ul style="list-style-type: none"> Quadratic Formula Taking Square Roots 	<ul style="list-style-type: none"> Students will demonstrate they have developed the ability to extend their level 3 knowledge to systems with three variables.

Level 3

Watch (and take notes) the lecture called Quadratic Formula.

1. Find the solutions using the Quadratic Formula (QF). (Choose 3 to complete. Do the rest for more practice.)

a. $2x^2 + 2x - 12 = 0$

$x=2, x=3$

c. $k^2 + 5k - 6 = 0$

$k = -6, k = 1$

e. $x^2 - 5x - 24 = 0$

$x = -3, x = 8$

b. $5x^2 + 3x + 1 = 0$

NO solutions

d. $2a^2 - a - 13 = 0$

$x = 2.81$

$x = -2.31$

f. $x^2 - 3x - 3 = 0$

$x = 3.79$

$x = -.79$

2. Find the solutions using the Quadratic Formula (QF). (Choose 3 to complete. Do the rest for more practice.)

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

$$x = 3$$
$$x = -2.5$$

c. $x^2 = 9x - 20$

$$x = 4$$
$$x = 5$$

e. $9x^2 - 11 = 6x$

$$x = 1.48$$
$$x = -0.82$$

b. $2x^2 - x - 4 = 2$

$$x = 2$$
$$x = -1.5$$

d. $x^2 = -3x + 40$

$$x = 5, x = -8$$

f. $4x^2 - 8 = x$

$$x = 1.54$$
$$x = -1.295$$