

Daily Agenda

Learning Target: I can use quadratic equations to model real life situations.

<p>To Do</p> <p>Finish 3.5 Formative, 3.6 Warm Up Homework 3.6 Worksheet</p>	<p>Assessments</p> <p>Chapter Test 10/24 - Calc and No Calc</p>
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You always pass failure on the way to success.
-Mickey Rooney

Nov 15-8:24 PM

$$\begin{aligned} -8 &= a - b + c \\ -5 &= 4a + 2b + c \\ 4 &= 9a + 3b + c \end{aligned}$$

$$\begin{aligned} 8 &= -a + b - c \\ 4 &= 9a + 3b + c \\ \underline{12} &= \underline{8a + 4b} \end{aligned}$$

$$\begin{aligned} 2 + b &= 1 \\ \underline{-2} & \\ \underline{b} &= \underline{-1} \end{aligned}$$

$$y = 2x^2 - x - 11$$

$$\begin{aligned} 8 &= -a + b - c \\ -5 &= 4a + 2b + c \\ \underline{3} &= \underline{3a + 3b} \\ 1 &= a + b \end{aligned}$$

$$\begin{aligned} -4(a + b) &= -4 \\ 8a + 4b &= 12 \\ \underline{-4a - 4b} &= \underline{-4} \\ 4a &= 8 \quad a = 2 \end{aligned}$$

$$\begin{aligned} a - b + c &= -8 \\ 2 + 1 + c &= -8 \\ 3 + c &= -8 \\ \underline{-3} & \\ \underline{c} &= \underline{-11} \end{aligned}$$

Oct 18-11:11 AM

3.5 Formative Day 1

<p>① $y = 2x^2 + 16x + 35$</p> <p>② $y = 2x^2 - 5x + 5$</p> <p>③ $y = .04x^2 + .9x - 12$</p> <p>④ $y = 2x^2 - 5x$</p>	<p>⑤ not function; inconsistent</p> <p>⑥ linear slope = $\frac{1}{3}$</p>
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Oct 18-11:16 AM

5.7 Quadratic Modeling

Table Partners

Discuss how is a football field arranged?

	0	10	20	30	40	50	40	30	20	10	0	
END ZONE												END ZONE

Sep 15-10:27 PM

At the Neuqua vs. Naperville North Football game, our quarterback threw a pass from the 40 yard line towards the goal line (end zone). The ball is 2 meters above the ground when it leaves his hand. It follows a parabolic path, reaching its highest point 14 meters above the ground as it crosses the 20 yard line.

Let x = the number of yards from the goal line
 Let y = the height of the ball

(0, 2)
(40, 2)
(20, 14) Vertex (highest pt.)

Oct 6-8:25 AM

Find the equation that models the path of the ball.

$$y = -.03x^2 + 1.2x + 2$$

(0, 2)
(20, 14)
(40, 2)

$$y - 14 = \frac{-3}{100}(x - 20)^2$$

b) $y = -.03(10)^2 + 1.2(10) + 2 = 11 \text{ meters}$

Oct 6-8:26 AM

Find the height of the ball when it crosses the 10 yard line.

If no one catches the ball, where will it hit the ground?

$$0 = -.03x^2 + 1.2x + 2$$

$$x = \frac{-1.2 \pm \sqrt{(1.2)^2 - 4(-.03)(2)}}{2(-.03)}$$

$$= -1.6, 41.6 \text{ yds}$$

The ball will land 1.6yds into the end zone if no one catches it.

Oct 6-8:26 AM

Oct 6-8:26 AM

Graph the model.

Oct 6-8:28 AM