

Do Now

1. Ben dives from a 10-foot platform. The equation $h = -16t^2 + 27t + 10$ models the dive. How long will it take Ben to reach the water?

$$0 = -16t^2 + 27t + 10$$

$$t = 2 \text{ sec}$$

roots
solutions
zeros
*-intucpts

2. A football is kicked up from ground level. The pathway of ball can be represented by the equation $h = -16t^2 + 92t$. Will the football hit a scoreboard located 130 feet from the ground?

$$130 = -16t^2 + 92t$$

$$0 = -16t^2 + 92t - 130$$

$$0 = 16t^2 - 92t + 130$$

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Homework Answers: 6)

1) 1

2) 2

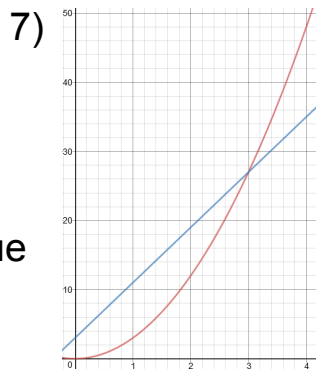
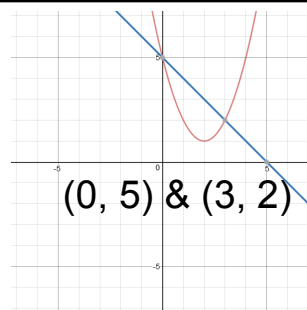
3) 1

4) 3

5) a. (-5, 64) & (2, 1)

b. (2, 2) & (3, 1)

8) at 7 weeks, the x-value of the positive point of intersection



x value of 300
a(x) is better at 200

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Unit 10 Test Review: Day 1

- Graphing Quadratic Functions
 - > Creating Tables of Values
- Graphical Features of a Quadratic Function
 - > AOS, Vertex, Min, Max, Turning Point, Roots, Solutions, Zeros, X-intercepts, Domain, Range
- Finding AOS and Vertex Algebraically
 - > Formula! - NOT GIVEN
- Vertex Form of a Quadratic Function $f(x) = a(x-h)^2 + k$
 - > Using Completing the Square
- Transformations of a Quadratic Function
 - > Rules MUST be memorized
- Quadratic Functions Word Problems (Graphically & Algebraically)
- Quadratic - Linear Systems
 - > Graphically, Algebraically & Word Problems
 - > Identifying Number of Solutions

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Unit 10 Test Review: Day 1

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