

Reading Questions for Section 2.6

(8pts)

Name _____

Due Date: _____

Bring this completed sheet with you to class on the due date to be handed in at the very beginning of the period.

(1) 1. In the first example, what is traveling through the air?

- A. a grapefruit
- B. a high diver
- C. a trapeze artist named the Great Santini
- D. a baseball

(1) 2. In this section you found the *zeros* of a quadratic function.

What methods are used to find zeros in this section?

- A. Set $f(x) = 0$ and solve for x by factoring.
- B. Set $f(x) = 0$ and solve for x by using the quadratic formula.
- C. Use a graph to approximate when the function crosses the horizontal axis.
- D. Use a graph to approximate when the function crosses the vertical axis.
- E. Set $x = 0$ and find $f(0)$.
- F. Both A, B, and C.

(1) 3. Carefully read **Section 2.6, Example 1** and the paragraph below it.

Write the *factored form* of $f(x) = x^2 - x - 6$. $f(x) =$ _____

(2) 4. Look at **Section 2.6, Example 3**. In trying to find zeros of the function

by solving an equation *using algebra*, the solution found was $x =$ _____.

Why is this solution **not** a real number?

Therefore what would we expect when we look at the *graph of a function* when we try to solve for zeros and get no real solutions?

(1) 5. In **Section 2.6, Example 5**, how many times does the quadratic model predict the high diver is at a height of 10 meters?

- A. none
- B. one
- C. two
- D. three

(2) 6. In **Section 2.6, Example 5**, find all the values of t for which $h = f(t) = 10$. Use any means you wish but **explain your reasoning**. ("I did it on my calculator" is not sufficient.)