Algebra 2 2nd trace zero Name_____

6.1F Finding Zeros with Calculator (paper only) Date_____ Period____

Use the graphing calculator to approximate the zeros to the nearest tenth.

1) $f(x) = -x^3 + 2x^2 + 3$

2) $f(x) = x^4 + 2x^3 - 2x^2 + 3$

• 3) $f(x) = x^4 - 3x^2 - x - 1$

(-1.7, 0), (1.9, 0)

4) $f(x) = -x^2 + 8x - 13$

5) $f(x) = -x^3 + x^2 - 3$

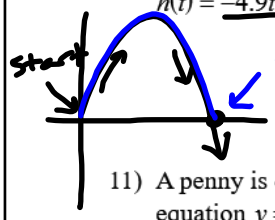
6) $f(x) = -x^2 - 4x + 2$

7) $f(x) = -x^3 + x^2 - 4$

8) $f(x) = -x^4 + 4x^3 - 3x^2 - 5x + 7$

9) A baseball is thrown from the upper deck of a stadium, 128 feet above the ground. The function $h(t) = -16t^2 + 32t + 128$ gives the height of the ball t seconds after it is thrown. How long will it take the ball to reach the ground?"

• 10) Javier is hitting a golf ball. He swings his golf club and hits the ball so that it has an initial vertical speed of 12 m/s. The height of the golf ball is modeled by the function $h(t) = -4.9t^2 + 12t$. For how many seconds is the ball in the air?



2.4 seconds

11) A penny is dropped from the top of a new building. Its height in feet can be modeled by the equation $y = 284 - 16x^2$, where x is the time in seconds since the penny was dropped. How long does it take for the penny to reach the ground?