

Name _____ Chapter 10 Quiz 2 (10.5-10.9)

Use the discriminant to determine the number of solutions for each equation. (2 points each)

6. $5x^2 - 4x + 6 = 0$

7. $5x^2 + 8x = 2$

8. $x^2 - 6x + 9 = 0$

9. Give the equations for each of the following AND draw an example of each!

a. Linear:

$y =$ _____

b. Quadratic:

$y =$ _____

c. Exponential:

$y =$ _____

Extra Credit

10. A ship drops anchor in a harbor. The anchor is 49 ft above the surface of the water when it is released. Use the vertical motion formula $h = -16t^2 + vt + s$ to answer the following questions.

a. What is the value of s , the starting height?

b. What is the value of h when the anchor hits the water?

c. The starting velocity is zero. After how many seconds will the anchor hit the water? Remember that your answer must be logical.