

## Graphing Calculator Website Quiz

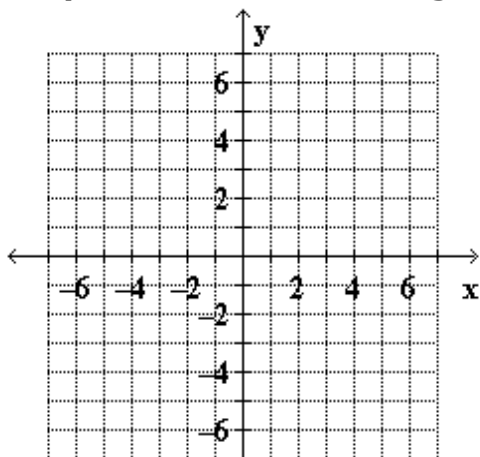
Name : \_\_\_\_\_

For 1–3, use the rule,  $y = -x^2 + 2$  to the answer the questions.

1. Use the rule to evaluate the output values by using the input values given from the table. Show the calculation in the "Work" box for each input.

x	-2	-1	0	1	2
Work					
y					

2. Graph the function on the grid provided.

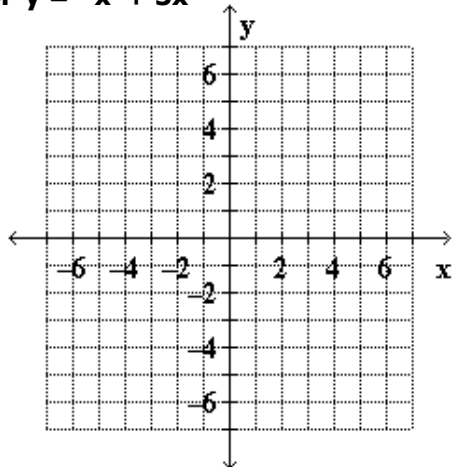


3. Identify the family it belongs to?

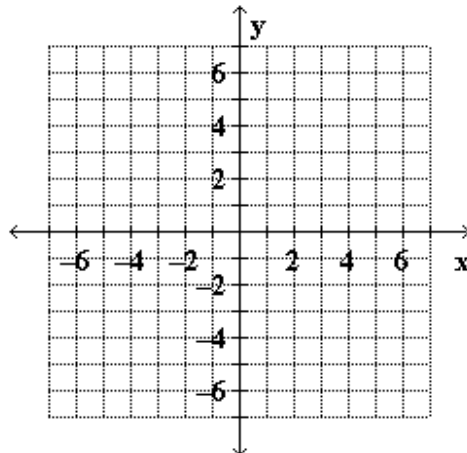
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For 4 & 5, use the graphing calculator website to graph the following functions on the grid provided.

4.  $y = -x^3 + 3x$

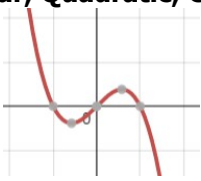


5.  $y = |x - 2| - 1$



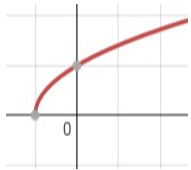
For 16–23, circle the correct function rule that would best match with the graph and then identify the name of the family to which each of the following functions belong to. (Hint: the families are Rational, Linear, Quadratic, Cubic, Exponential, Absolute Value, and Roots.)

16.  $y = \frac{1}{3x} + x$      $y = \sqrt{3x} + x$      $y = -x^3 + x$      $y = |3x| + x$



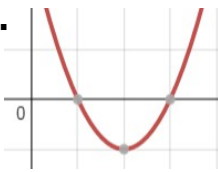
#16 ANSWER: \_\_\_\_\_

17.  $y = \frac{1}{x} + 1$      $y = \sqrt{x+1}$      $y = x^2 + 1$      $y = |x| + 1$



#17 ANSWER: \_\_\_\_\_

18.  $y = \frac{1}{x-2} - 1$      $y = \sqrt{x-2} - 1$      $y = (x-2)^2 - 1$      $y = |x-2| - 1$



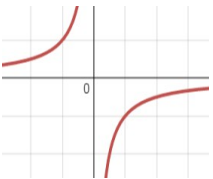
#18 ANSWER: \_\_\_\_\_

19.  $y = \left(\frac{1}{2}\right)^x$      $y = \sqrt{\frac{1}{2}x}$      $y = \frac{1}{2}x^2$      $y = \left|\frac{1}{2}x\right|$



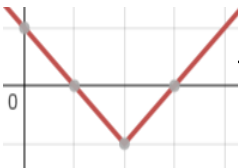
#19 ANSWER: \_\_\_\_\_

20.  $y = |-x|$      $y = \sqrt{-x}$      $y = -x^2$      $y = \frac{1}{-x}$



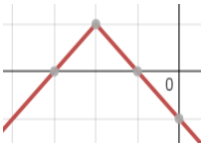
#20 ANSWER: \_\_\_\_\_

21.  $y = |x-2| - 1$      $y = \sqrt{x-2} - 1$      $y = (x-2)^2 - 1$      $y = \frac{1}{x-2} - 1$



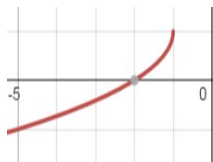
#21 ANSWER: \_\_\_\_\_

22.  $y = \frac{1}{-x+2} + 1$      $y = \sqrt{-x+2} + 1$      $y = -(x+2)^2 + 1$      $y = -|x+2| + 1$



#22 ANSWER: \_\_\_\_\_

23.  $y = |-x-1| + 1$      $y = -\sqrt{-x-1} + 1$      $y = -(x-1)^3 + 1$      $y = \frac{1}{-x-1} + 1$



#23 ANSWER: \_\_\_\_\_