

**“Don’t worry about failure, worry about the chances you miss when you don’t even try” –Jack Canfield**

Monday

$$1. \quad f(x) = \begin{cases} x+5 & \text{if } x < -2 \\ -4 & \text{if } x \geq -2 \end{cases}$$

$$f(3) = \qquad f(-4) = \qquad f(-2) =$$

$$2. \quad f(x) = \begin{cases} 2x+1 & \text{if } x < 1 \\ -2x+3 & \text{if } x \geq 1 \end{cases}$$

$$f(-2) = \qquad f(6) = \qquad f(1) =$$

$$3. \quad f(x) = \begin{cases} -2x-4 & \text{if } x \leq 2 \\ 4x-9 & \text{if } x > 2 \end{cases}$$

$$f(-4) = \qquad f(8) = \qquad f(2) =$$

$$4. \quad f(x) = \begin{cases} x-1 & \text{if } x \leq -2 \\ 2x-1 & \text{if } -2 < x \leq 4 \\ -3x+8 & \text{if } x > 4 \end{cases}$$

$$f(-1) = \qquad f(-4) = \qquad f(5) =$$

$$5. \quad f(x) = \begin{cases} x & \text{if } x \leq -1 \\ -x+4 & \text{if } x > -1 \end{cases}$$

$$f(-4) = \qquad f(0) = \qquad f(3) =$$

$$6. \quad f(x) = \begin{cases} 5 & \text{if } x < -2 \\ \frac{1}{2}x-6 & \text{if } -2 \leq x \leq 6 \\ -2x+10 & \text{if } x > 6 \end{cases}$$

$$f(-4) = \qquad f(8) = \qquad f(-2) =$$

$$I. \quad f(x) = 2x - 1 \quad g(x) = 3x \quad h(x) = x^2 + 1$$

Compute the following:

1.  $f(g(-3))$

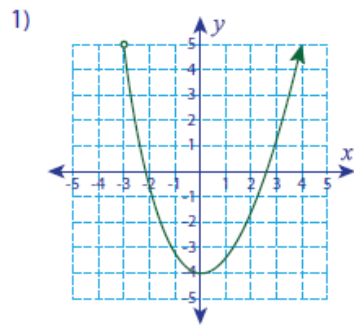
2.  $f(h(7))$

3.  $g(h(24))$

4.  $h(f(9))$

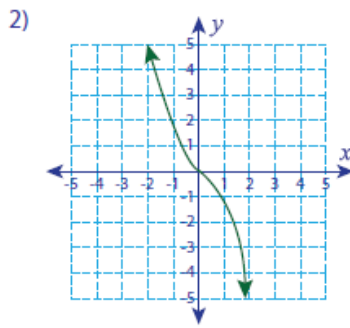
5.  $g(f(0))$

6.  $h(g(-4))$



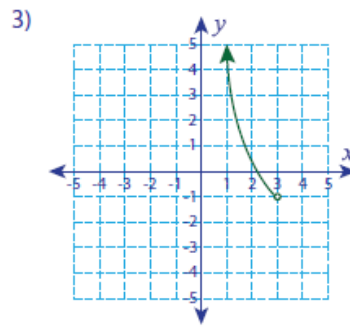
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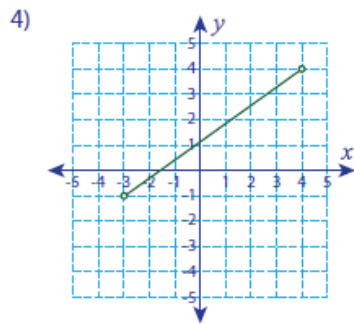
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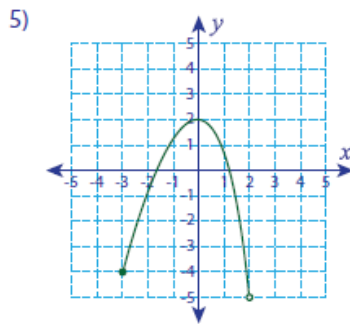
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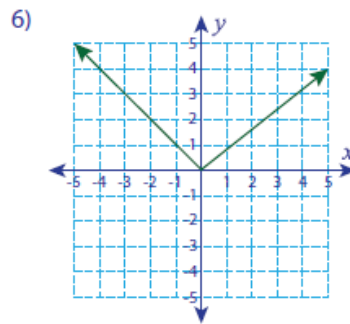
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Thursday:

Identify the parent function and the transformations of the function below:

1.  $f(x) = -\sqrt{x-4}$

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

3.  $f(x) = \sqrt[3]{x+5}$

4.  $f(x) = (x+6)^2 + 1$

5.  $f(x) = \frac{1}{x+5}$