

Name:

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# HOMEWORK 7.3

Secondary Math II

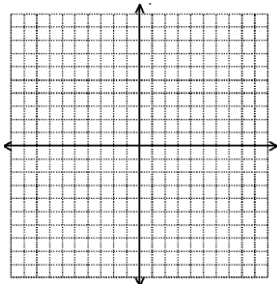
<p><b>Turned in On Time</b> (4 pts.)</p> <input type="checkbox"/>	<p>0A.(2 pt.) For the function <math>f(x) = 4x^2 - 1</math> find <math>5(f)(x)</math>  <math>f(x) = 20x^2 - 5</math></p>
	<p>0B.(2 pt.) For the function <math>g(x) = 7x</math> and <math>h(x) = x^2 - 2x + 2</math>, find <math>3(g - h)(4)</math>.  <math>3(g - h)(4) = 54</math></p>

## Review

<p>1.(2 pt.) Write <math>\sqrt[4]{32}</math> in simplest exact value form  <math>2\sqrt[4]{2}</math></p>	<p>2. (2 pt.) Write <math>\sqrt{-28}</math> in simplest exact value form  <math>2i\sqrt{7}</math></p>	<p>3. (2 pt.) Write <math>\sqrt{-49}</math> in simplest exact value form  <math>7i</math></p>
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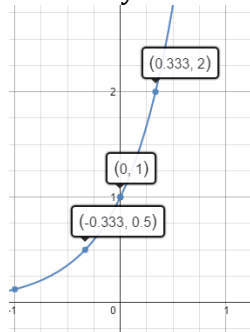
## Classroom Exercise #4

(3 pts.)



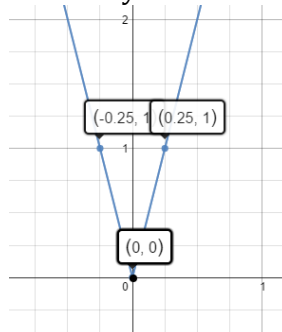
4A. (1 pt.) Graph the function that has the following (label key points)

- Parent function is exponential
- Horizontal stretch by a factor of 3



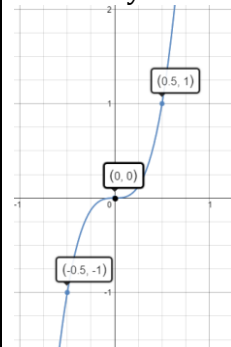
4B. (1 pt.) Graph the function that has the following following (label key points)

- Parent function is absolute value
- Horizontal stretch by a factor of 4



4C. (1 pt.) Graph the function that has the following following (label key points)

- Parent function is cubic
- Horizontal stretch by a factor of 2



5. (2 pt.) Identify the parent function and write in terms of "k" and f(x)

$$k(s) = (-3s)^2$$

Parent function is quadratic  
 $f(-3x)$

6. (2 pt.) Identify the parent function and write in terms of "k" and f(x)

$$k(s) = \sqrt{(0.2s)}$$

Parent function is radical  
 $f(0.2x)$

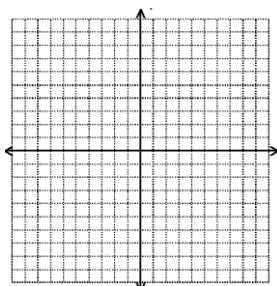
7. (2 pt.) Identify the parent function and write in terms of "k" and f(x)

$$t(s) = |-0.5s|$$

Parent function is absolute value  
 $f(-0.5x)$

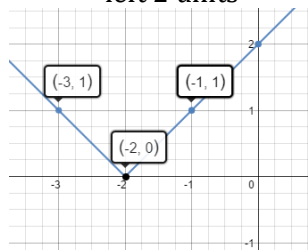
# Classroom Exercise #8

(3 pts.)



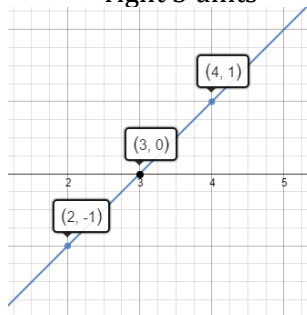
8A. (1pt.) Graph the function that has the following (label key points)

1. Parent function is absolute value
2. Horizontal shift left 2 units



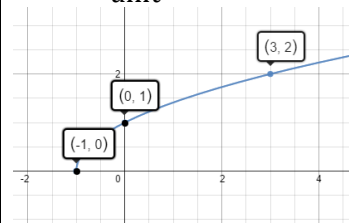
8B. (1pt.) Graph the function that has the following (label key points)

1. Parent function is linear
2. Horizontal shift right 3 units



8C. (1pt.) Graph the function that has the following (label key points)

1. Parent function is radical
2. Horizontal shift left 1 unit



9. (1 pt.) write a function that has the following requirements

1. cubic parent function
2. horizontal shift left 7 units

$$f(x) = (x + 7)^3$$

10. (1 pt.) write a function that has the following requirements

1. exponential parent function (base is 2)
2. horizontal shift right 3 units

$$f(x) = 2^{(x-3)}$$

11. (1 pt.) write a function that has the following requirements

1. radical parent function
2. horizontal shift left 4 units

$$f(x) = \sqrt{(x + 4)}$$

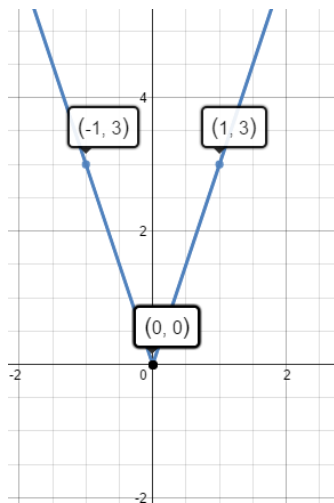
12. (3 pt.)

Given the parent function  $f(x) = |x|$ ,

1. Graph (label key points)
2. write as a function
3. List the transformations

$$k(x) = |3x|$$

**Horizontal compression** that occurred for  $f(3x)$

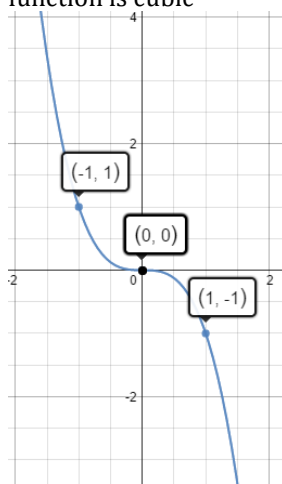


13. (3 pt.)

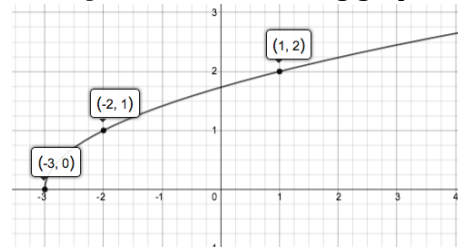
1. Graph (label key points)
2. Write as a function
3. If the parent function is  $f(x) = (x)^3$ , write in terms of "k" and  $f(x)$

$$k(x) = (-x)^3$$

for the function that has a reflection about the y-axis and whose parent function is cubic



14. (3 pt.) For the following graph,



1. identify the parent function
2. write the function that represents this graph

$$f(x) = \sqrt{(x + 3)}$$

3. List the transformations that have occurred.

**Horizontal shift left 3 units**