

Corrective Assignment

Name the parent function. Then describe the transformation of the function.

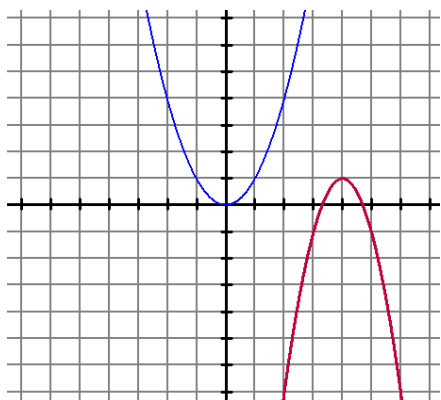
<p>1. $y = 2(x + 1)^2 - 5$</p> <p>NAME: _____</p> <p>Translation:</p> <p>Scale:</p> <p>Reflection:</p>	<p>2. $y = -(4 - x)^3 - 5$</p> <p>NAME: _____</p> <p>Translation:</p> <p>Scale:</p> <p>Reflection:</p>	<p>3. $f(x) = \left\lceil \frac{1}{3}x \right\rceil + 8$</p> <p>NAME: _____</p> <p>Translation:</p> <p>Scale:</p> <p>Reflection:</p>
<p>4. $f(x) = \sqrt{-2x + 4} + 6$</p> <p>NAME: _____</p> <p>Translation:</p> <p>Scale:</p> <p>Reflection:</p>	<p>5. $y = \frac{1}{5} \log_2(x - 3) - 4$</p> <p>NAME: _____</p> <p>Translation:</p> <p>Scale:</p> <p>Reflection:</p>	<p>6. $f(x) = 4 - 5e^{x+3}$</p> <p>NAME: _____</p> <p>Translation:</p> <p>Scale:</p> <p>Reflection:</p>

Given the parent function, write the equation of the following transformation.

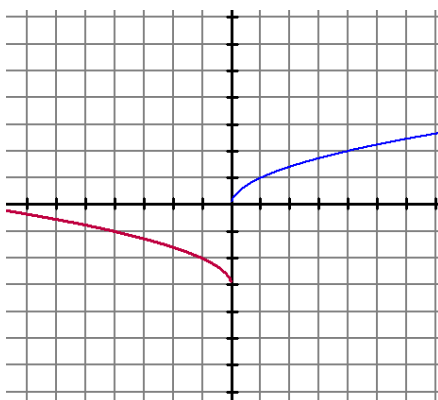
<p>7. $y = x^3$</p> <p>Vertical shift up 4, horizontal shift left 2, reflect about x-axis</p>	<p>8. $y = \log_5 x$</p> <p>Vertical shift down 3, vertical stretch of 6, reflect about y-axis</p>	<p>9. $f(x) = x$</p> <p>Vertical shift up 6, horizontal shift left 7, horizontal stretch of 3</p>
<p>10. $f(x) = \sqrt{x}$</p> <p>Vertical shift down 6, horizontal shift right 7, vertical shrink of $\frac{1}{5}$</p>	<p>11. $y = \frac{1}{x}$</p> <p>Horizontal shift right 3, horizontal shrink of $\frac{1}{6}$, reflect about x-axis</p>	<p>12. $f(x) = 2^x$</p> <p>Vertical shift down 4, reflect about y-axis</p>

The graph of a parent function and a transformation of the parent function are given. Write the equation of the transformed function.

13.



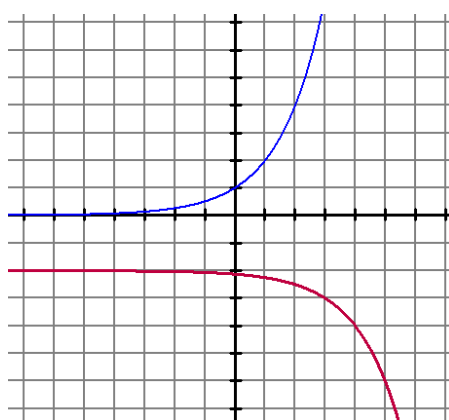
14.



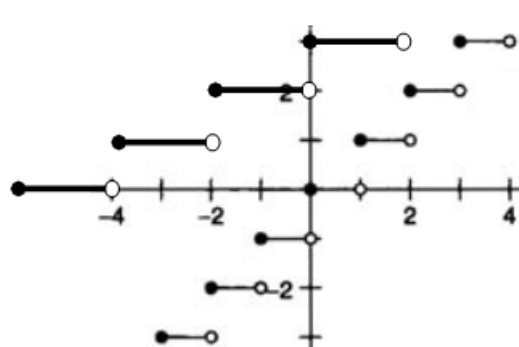
15.



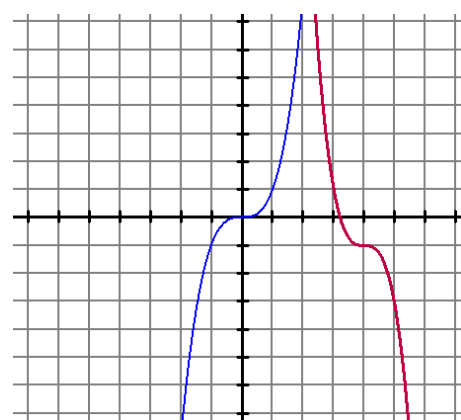
16. (base 2)



17.



18.



ANSWERS TO 4.1 CORRECTIVE ASSIGNMENT

1. Quadratic Function Vertical shift down 5 Horizontal shift left 1 Vertical stretch of 2	2. Cubic Function Vertical shift down 5 Horizontal shift left 4 Reflect x -axis Reflect y -axis	3. Greatest Integer Function Vertical shift up 8 Horizontal stretch of 3	4. Square Root Function Vertical shift up 6 Horizontal shift right 2 Horizontal shrink of $\frac{1}{2}$ Reflect y -axis
5. Logarithmic Function Vertical shift down 4 Horizontal shift right 3 Vertical shrink of $\frac{1}{5}$	6. Exponential Function Vertical shift up 4 Horizontal shift left 3 Vertical stretch of 5 Reflect x -axis	7. $y = -(x + 2)^3 + 4$	8. $y = 6 \log_5(-x) - 3$
9. $y = \left \frac{1}{3}(x + 7) \right + 6$ OR $y = \left \frac{1}{3}x + \frac{7}{3} \right + 6$	10. $y = \frac{1}{5}\sqrt{x - 7} - 6$	11. $y = -\frac{1}{6(x-3)}$ OR $y = -\frac{1}{6x - 18}$	12. $y = 2^{-x} - 4$
13. $f(x) = -2(x - 4)^2 + 1$	14. $f(x) = \sqrt{-x} - 3$	15. $f(x) = \frac{1}{x+3} + 1$	
16. $f(x) = -2^{(x-3)} - 2$	17. $f(x) = \left\lfloor \frac{1}{2}x \right\rfloor + 3$	18. $f(x) = -2(x - 4)^3 - 1$ OR $f(x) = 2(4 - x)^3 - 1$	

