

Pre-8 Worksheet (2 pages)

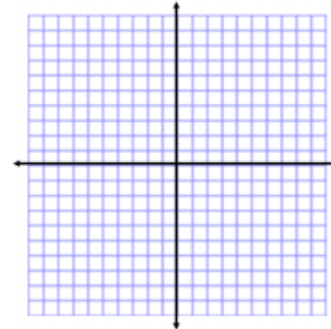
For problems 1-6, please give the name of the parent function and describe the transformation represented. Then create a sketch of the given function on the coordinate plane provide. LAST...state the domain and range.

1. $g(x) = (x + 3)^2 - 6$

Parent: _____

Transformation: _____

Domain: _____ Range: _____

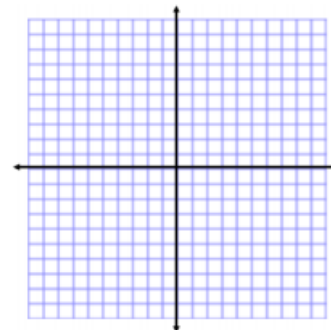


2. $h(x) = 2|x - 2|$

Parent: _____

Transformation: _____

Domain: _____ Range: _____

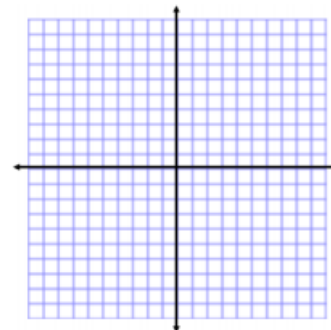


3. $m(x) = \sqrt{x - 3} + 4$

Parent: _____

Transformation: _____

Domain: _____ Range: _____

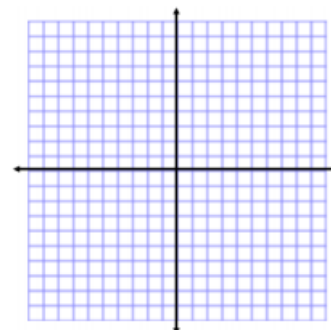


4. $f(x) = -\frac{1}{2}(x + 7)^2 - 4$

Parent: _____

Transformation: _____

Domain: _____ Range: _____



5. $b(x) = -\sqrt{x - 1} + 1$

Parent: _____

Transformation: _____

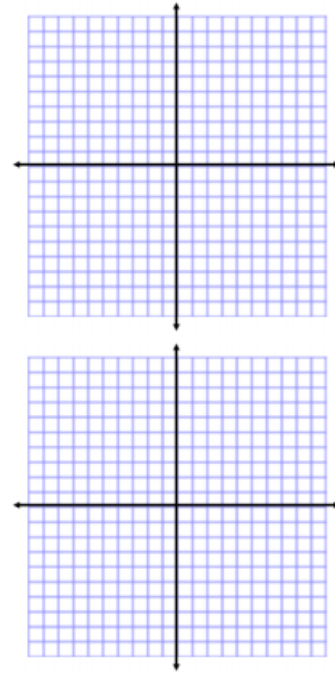
Domain: _____ Range: _____

6. $k(x) = -3|x + 5| - 2$

Parent: _____

Transformation: _____

Domain: _____ Range: _____



For problems 7-10, given the parent function and a description of the transformation, write the equation of the transformed function $f(x)$.

7. Parent: Absolute Value

Transformations: vertical shift down 5, horizontal shift right 7

Equation: _____

8. Parent: Quadratic

Transformations: vertical reflection about the x-axis, vertical stretch by a factor of 3, vertical shift down 8

Equation: _____

9. Parent: Radical or Square Root

Transformations: vertical reflection about the x-axis, vertical shift down 1, horizontal shift left 9

Equation: _____

10. Parent: Quadratic

Transformations: vertical compress by a factor of $\frac{7}{8}$, vertical shift up 5, horizontal shift right 2

Equation: _____