

AA PREP: GRAPHING WITH TRANSFORMATIONS—WORKSHEET #2 KEY

Graph each of the following functions using transformations.

1. $y = 2(x-3)^2$ QUADRATIC

PARENT:
 $y = x^2$

\checkmark STRETCH $\times 2$

3 \textcircled{R}

2. $y = -|x+1| - 4$ ABSOLUTE VALUE

PARENT:
 $y = |x|$

REFLECTION
OVER
X-AXIS

1 \textcircled{L}
4 $\textcircled{\downarrow}$

3. $g(x) = \frac{1}{2}\sqrt{x} + 5$ SQUARE ROOT

PARENT:
 $y = \sqrt{x}$

\checkmark COMP $\times \frac{1}{2}$

5 $\textcircled{\uparrow}$

4. $f(x) = 2^{x+1} - 3$ EXPONENTIAL

PARENT:
 $y = 2^x$

1 \textcircled{L}
3 $\textcircled{\downarrow}$

$y = -3$

5. $g(x) = -(x+2)^3$ CUBIC

PARENT:
 $y = x^3$

REFLECTION
OVER
X-AXIS

2 \textcircled{L}

6. $y = \frac{1}{x-3} + 4$ RATIONAL

PARENT:
 $y = \frac{1}{x}$

3 \textcircled{R}
4 $\textcircled{\uparrow}$

$y = 4$

$x = 3$