ALGEBRA 2 · CLASSWORK · SPECIAL ED

Identify Transformations From an Equation

SCORE / 25

01 Part A · Practice

In $g(x) = af(b(x - h)) + k$: a stretches or reflects vertically, b horizontally, h moves right, k moves up.

EXAMPLE

Describe $g(x) = -3(x + 1)^2 + 4$ **from** $f(x) = x^2$**.**

1. $a = -3$: reflect across the x-axis, stretch by 3.
2. $x + 1 = x - (-1)$: left 1.
3. $+4$: up 4. Vertex $(-1, 4)$.

WORDS TO KNOW

- a number in front: stretch, compress, or flip
- h inside number: moves left or right
- k number added at the end: moves up or down

1 ●○○

Find the vertex of $g(x) = -|x + 2|$ and tell whether it opens up or down.

HINT Write it as $a(x - h) + k$ form. The vertex is (h, k).

2 ●○○

Describe the transformations from $f(x) = x^2$ to $g(x) = 2(x + 2)^2 + 3$.

HINT Check the front, inside, and end numbers.

PREVIEW

Preview - the full worksheet and its answer key are at primeworksheet.com