ALGEBRA 2 · CLASSWORK

Translate a Function

SCORE / 25

01 Part A · Practice

$g(x) = f(x - h) + k$ moves the graph of f right h (left if $h < 0$) and up k (down if $k < 0$).

EXAMPLE

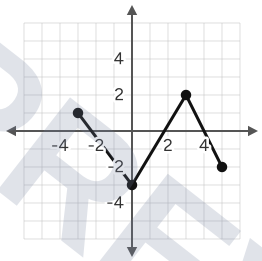
Describe $g(x) = |x + 2| - 3$ compared with $f(x) = |x|$.

1. $x + 2 = x - (-2)$, so $h = -2$: left 2.
2. -3 outside: down 3.
3. The vertex moves from $(0, 0)$ to $(-2, -3)$.

1 ●○○ The point $(5, 1)$ is on the graph of f. Which point must be on the graph of $g(x) = f(x + 2) + 2$?

2 ●○○ Describe the translation from $f(x) = |x|$ to $g(x) = |x - 3| - 4$.

3 ●○○ The graph of f is shown. Graph $g(x) = f(x + 3) - 3$. List the new points.



4 ●○○ Write g, the translation of $f(x) = \sqrt{x}$ 2 units left and 2 units down.

PREVIEW

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