ALGEBRA 1 · CLASSWORK

Compare Rates of Change of Two Functions

SCORE / 25

01 Part A · Practice

To compare two functions, find each average rate of change on the SAME interval; a line's rate is its slope.

EXAMPLE

Compare $f(x) = \sqrt[3]{x}$ and $g(x) = \frac{1}{4}x$ on $[0, 8]$.

1. f: $\frac{2 - 0}{8 - 0} = \frac{1}{4}$.
2. g: slope $\frac{1}{4}$.
3. They change at the same average rate.

1 ●○○

$f(x) = 3\sqrt[3]{x}$. The table gives two values of g. Which has the greater rate of change from $x = -1$ to $x = 64$?

x	-1	64
$g(x)$	7	21

2 ●○○

Compare the average rates of change of $f(x) = \sqrt[3]{x}$ and $g(x) = \frac{1}{2}x + 6$ on $1 \le x \le 8$.

3 ●○○

Which changes faster on $1 \le x \le 64$: $f(x) = 5\sqrt[3]{x}$ or $g(x) = 8\sqrt{x}$?

4 ●○○

$f(x) = 2\sqrt[3]{x}$. The table gives two values of g. Which has the greater rate of change from $x = -27$ to $x = -1$?

x	-27	-1
$g(x)$	4	-8

© 2026 Math Teacher Prints · 10-2e Classwork · Regular

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