

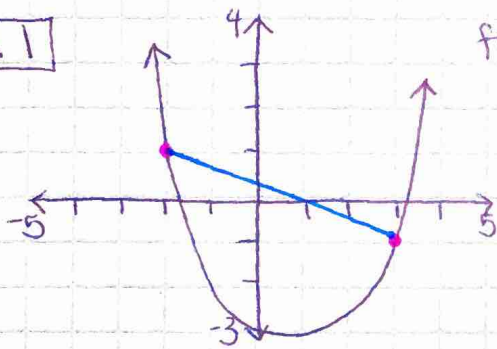
Average Rate of Change

* the slope of a line segment between 2 pts.

given the interval $[a, b]$ the average rate of change is:

$$\frac{f(b) - f(a)}{b - a}$$

ex 1



find the ARC for $[-2, 3]$

$$\frac{f(3) - f(-2)}{3 - (-2)} = \frac{3 - 1}{5} = \frac{2}{5}$$

y-values

indications

- ① the ARC is zero over every interval \rightarrow constant
- ② the ARC is the same \neq over every interval \rightarrow linear
- ③ the ARC is different \rightarrow nonlinear