Let $y = F(x)$ for $x \in [a, b]$.
Suppose, $y_1 = F(x_1)$ and $y_2 = F(x_2)$ for $x_1 < x_2$.

The *change in x*, $\Delta x = x_2 - x_1$, and
the *change in y*, $\Delta y = y_2 - y_1$.

The *average rate of change* in y with respect to x over the interval $[x_1, x_2]$ is the ratio

$$\Delta y / \Delta x.$$

The *percent change* in y with respect to x over the interval $[x_1, x_2]$ is

$$100 * \frac{[F(x_2) - F(x_1)]}{F(x_1)} = 100 * \frac{[y_2 - y_1]}{y_1} = 100 * \Delta y / y_1.$$

The *average proportionate growth rate* is the ratio

$$\frac{[\Delta y / \Delta x]}{F(x_1)} = \frac{[\Delta y / \Delta x]}{y_1}$$

The *average proportionate growth rate* is frequently called the *relative growth rate.*