

Families of Functions

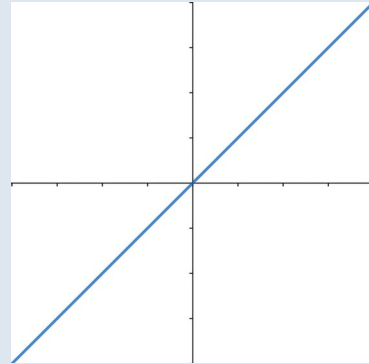
Members of a family of functions share the same type of rate of change.



Linear Functions

The rate of change is constant.

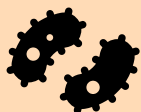
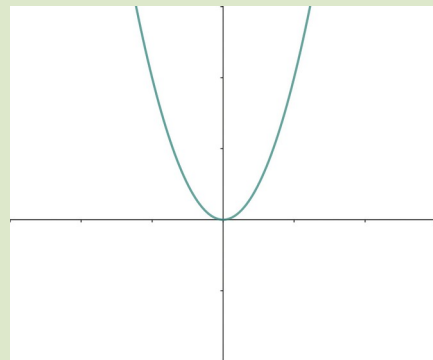
$$f(x) = ax + b$$



Quadratic Functions

The rate of change is not constant, but its rate of change is itself changing at a constant rate.

$$g(x) = ax^2 + bx + c$$



Exponential Functions

Exponential functions are characterized by rate of change that is proportional to the value of the function.

$$h(x) = a * b^x$$

