Comparing Growth Rates

Materials needed:graphing calculator or laptops to check work online (e.g., Desmos)

Graph the following functions:

$f(x) = 3(1.5)^x$
$f(x) = 3(3)^x$
$f(x) = 3(6)^x$

What do you notice about the steepness of the graph as the growth factor (*b*) changes?

      The slope gets (steeper/shallower) as the growth factor (increases/decreases).

Write 3 additional functions with the same y-intercept but different growth rate.
1. f(x) =   Effect on graph:
2. f(x) =   Effect on graph:
3. f(x) =   Effect on graph:

Write a summary statement that describes the effect of the growth rate on the graph of an exponential function.