Unit 5 Glossary Terms

Growth factor

In an exponential function, the output is multiplied by the same factor every time the input increases by one. The multiplier is called the growth factor.

Exponential function

An exponential function is a function that has a constant growth factor. Another way to say this is that it grows by equal factors over equal intervals.

For example, $f(x) = 2 \cdot 3^{x}$ defines an exponential function. Any time x increases by 1, $f(x)$ increases by a factor of 3.

Growth rate

In an exponential function, the growth rate is the fraction or percentage of the output that gets added every time the input is increased by one. If the growth rate is 20% or 0.2, then the growth factor is 1.2.