

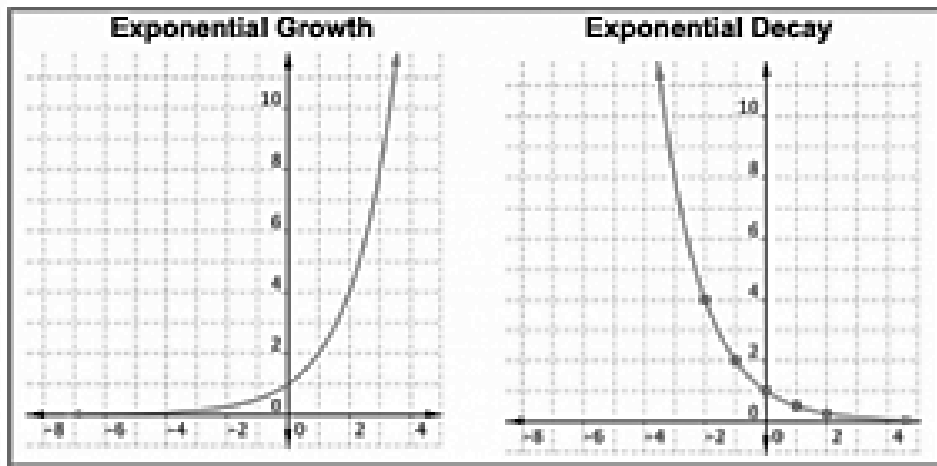
8.1 Writing Exponential Functions

Exponential functions are of the form: $y = a \cdot (1 + r)^x$

a is the _____

r is the _____

r is a growth rate, when....



r is a decay rate, when....

State whether the following exponential functions are growth or decay:

a) $f(x) = 3^x$

b) $f(x) = \frac{3^x}{4}$

c) $f(x) = 7\left(\frac{1}{5}\right)^x$

d) $f(x) = 10 \cdot 5^x$

Review of Decimals \Leftrightarrow Percentages

Convert from Percent \rightarrow Decimal	Divide the percent by 100. This is equivalent to moving the decimal point two places to the left.
Convert from Decimal \rightarrow Percent	Multiply the decimal by 100. This is equivalent to moving the decimal point two places to the right.

e) $.753 = \underline{\hspace{2cm}}\%$

f) $52\% = \underline{\hspace{2cm}}$

g) $.023 = \underline{\hspace{2cm}}\%$

h) $125\% = \underline{\hspace{2cm}}$

Word Problem:

The population of the popular town of Brodyville in 2003 was estimated to be 35,000 people with an annual rate of increase (growth) of about 2.4%.

Equation: _____

What is the population of Brodyville in 2010?