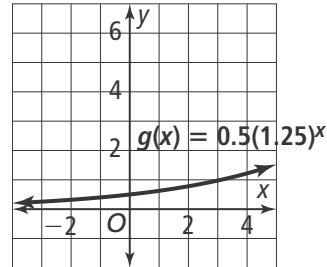
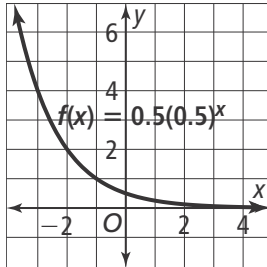




6-1 Reteach to Build Understanding

Key Features of Exponential Functions

1. Fill in the blank for each graph using the terms in the word bank below. Terms can be used multiple times.



Word Bank:

$f(x) = 0.5(0.5)^x$	x -axis	As $x \rightarrow -\infty$, $y \rightarrow \infty$	1.25
As $x \rightarrow \infty$, $y \rightarrow 0$	$y \geq 0$	0.5	y -axis

Exponential Decay

$$y = ab^x \text{ and } 0 < b < 1$$

Exponential function: _____

$$a = 0.5, b = \underline{\hspace{2cm}}$$

Range: $y \geq 0$

Asymptote: _____

End Behavior: _____

The initial amount: 0.5

Decay factor: _____

y -intercept: _____

Exponential Growth

$$y = ab^x \text{ and } \underline{\hspace{2cm}}$$

Exponential function: _____

$$g(x) = 0.5(1.25)^x$$

$$a = 0.5, b = \underline{\hspace{2cm}}$$

Range: _____

Asymptote: x -axis

End Behavior: As $x \rightarrow -\infty$, $y \rightarrow 0$.
As $x \rightarrow \infty$, $y \rightarrow \infty$.

The initial amount: _____

Growth factor: 1.25

y -intercept: _____

2. Emma says that for $f(x) = 8,000(0.95)^x$, the exponential growth factor is 0.95 and the y -intercept is 8,000. What is her error?