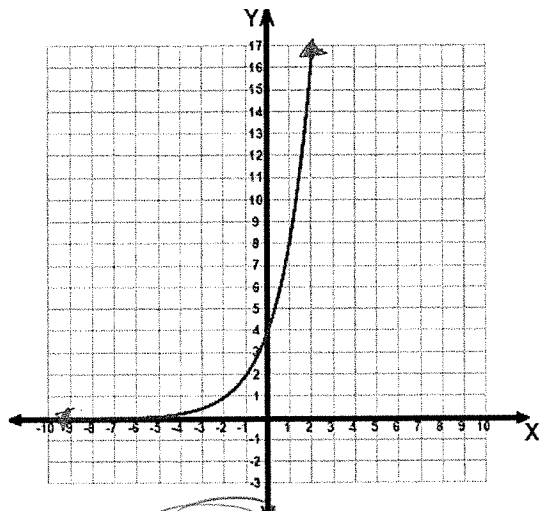
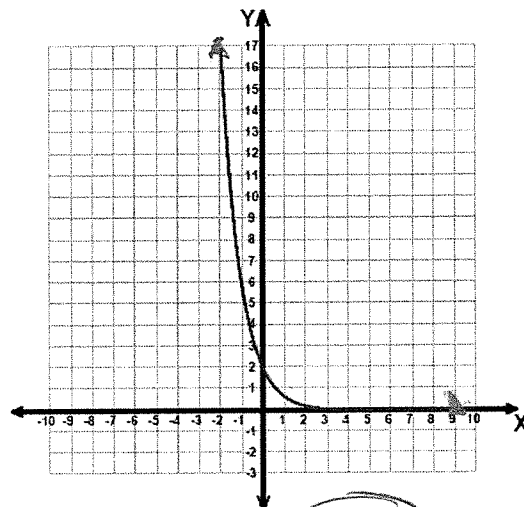


Family: Exponential Parent equations: Growth $f(x) = 2^x$ Decay $f(x) = \left(\frac{1}{2}\right)^x$



GROWTH or DECAY?



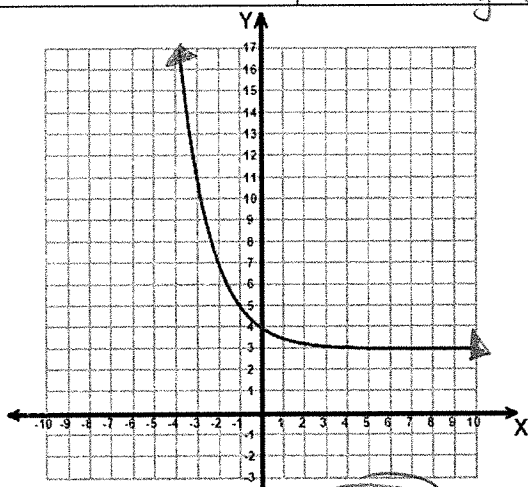
GROWTH or DECAY?

Domain: $(-\infty, \infty)$
Range: $(0, \infty)$
X-intercept: N/A
Y-intercept: $(0, 2)$

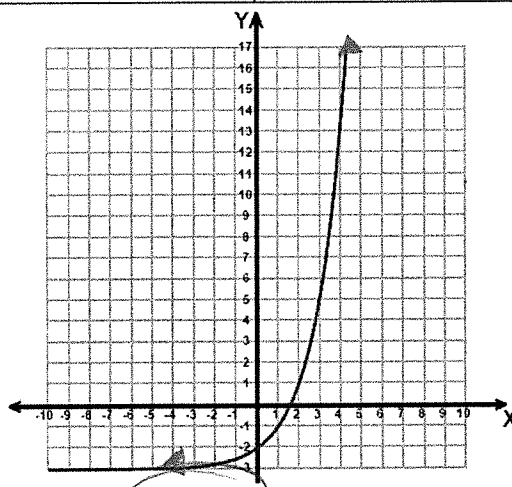
Increasing: $(-\infty, \infty)$
Decreasing: N/A
As $x \rightarrow -\infty$, $f(x) \rightarrow 0$
End behavior:
As $x \rightarrow \infty$, $f(x) \rightarrow \infty$
Asymptote: X-axis
 $y = 0$

Domain: $(-\infty, \infty)$
Range: $(0, \infty)$
X-intercept: N/A
Y-intercept: $(0, 1)$

Increasing: N/A
Decreasing: $(-\infty, \infty)$
As $x \rightarrow -\infty$, $f(x) \rightarrow \infty$
End behavior:
As $x \rightarrow \infty$, $f(x) \rightarrow 0$
Asymptote: X-axis
 $y = 0$



GROWTH or DECAY?



GROWTH or DECAY?

Domain: $(-\infty, \infty)$
Range: $(3, \infty)$
X-intercept: N/A
Y-intercept: $(0, 4)$

Increasing: N/A
Decreasing: $(-\infty, \infty)$
As $x \rightarrow -\infty$, $f(x) \rightarrow \infty$
End behavior:
As $x \rightarrow \infty$, $f(x) \rightarrow 3$
Asymptote: $y = 3$

Domain: $(-\infty, \infty)$
Range: $(-3, \infty)$
X-intercept: $(1.5, 0)$
Y-intercept: $(0, -2)$

Increasing: $(-\infty, \infty)$
Decreasing: N/A
As $x \rightarrow -\infty$, $f(x) \rightarrow -3$
End behavior:
As $x \rightarrow \infty$, $f(x) \rightarrow \infty$
Asymptote: $y = -3$