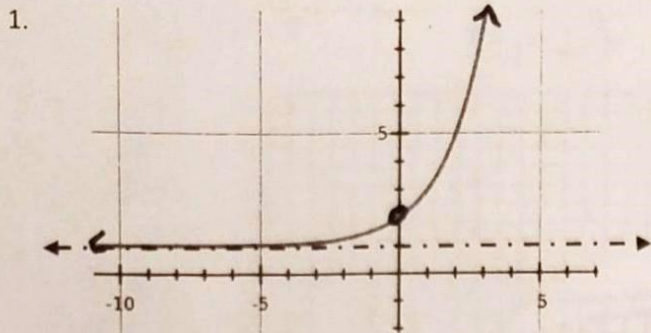
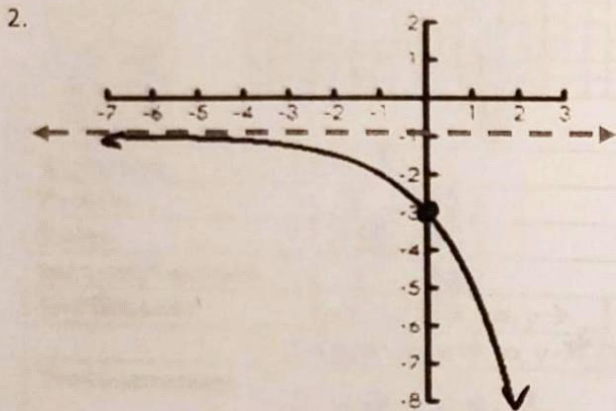


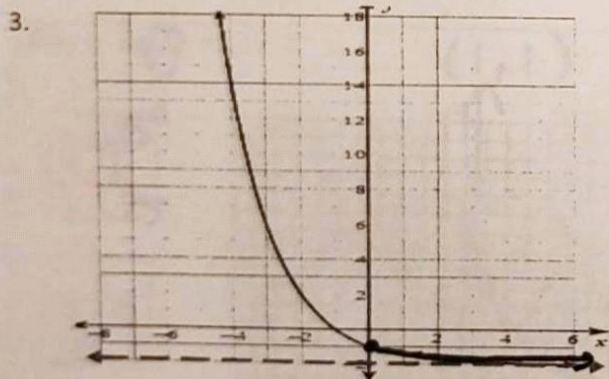
Warm Up



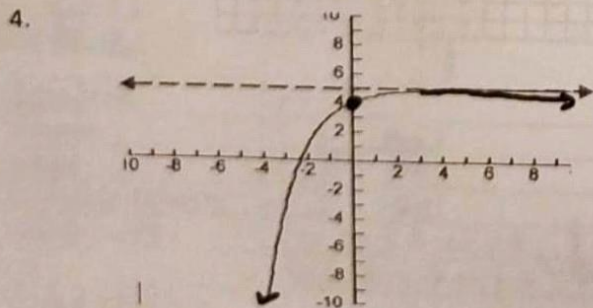
Asymptote	$y = 1$
Domain	$(-\infty, \infty)$
y-intercept	$(0, 2)$
Range	$(1, \infty)$
Increase/Decrease	$(-\infty, \infty)$
End Behavior	Left: As $x \rightarrow -\infty, y \rightarrow 1$ Right: As $x \rightarrow \infty, y \rightarrow \infty$



Asymptote	$y = -1$
Domain	$(-\infty, \infty)$
y-intercept	$(0, -3)$
Range	$(-\infty, -1)$
Increase/Decrease	$(-\infty, \infty)$
End Behavior	Left: As $x \rightarrow -\infty, y \rightarrow -1$ Right: As $x \rightarrow \infty, y \rightarrow -\infty$



Asymptote	$y = -2$
Domain	$(-\infty, \infty)$
y-intercept	$(0, -1)$
Range	$(-2, \infty)$
Increase/Decrease	$(-\infty, \infty)$
End Behavior	Left: As $x \rightarrow -\infty, y \rightarrow \infty$ Right: As $x \rightarrow \infty, y \rightarrow -2$



Asymptote	$y = 5$
Domain	$(-\infty, \infty)$
y-intercept	$(0, 4)$
Range	$(-\infty, 5)$
Increase/Decrease	$(-\infty, \infty)$
End Behavior	Left: As $x \rightarrow -\infty, y \rightarrow -\infty$ Right: As $x \rightarrow \infty, y \rightarrow 5$

5. Describe the transformations:

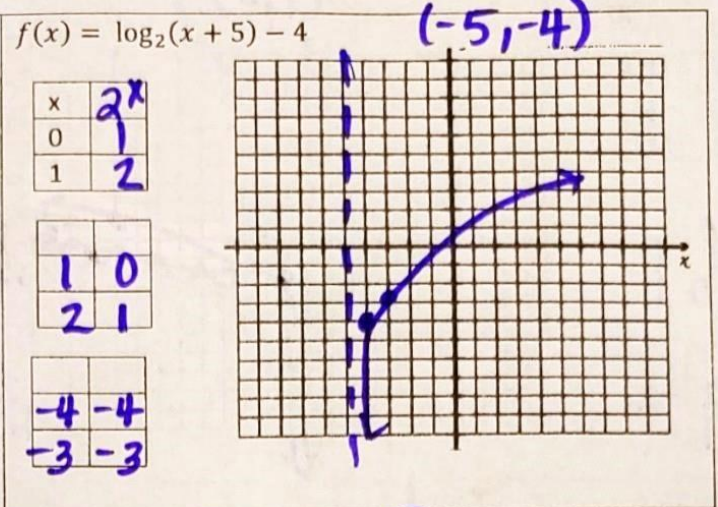
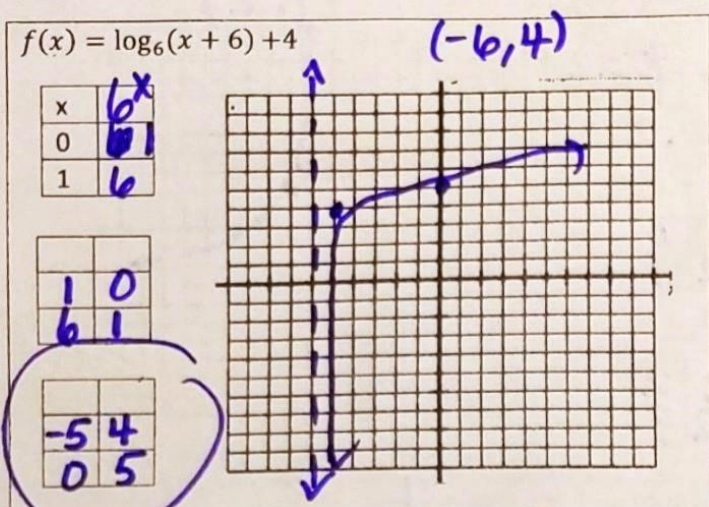
a) $f(x) = -\frac{1}{2}(2)^{x+2} + 5$

reflection, shrink by $\frac{1}{2}$,
 $\leftarrow 2, \uparrow 5$

b) $f(x) = 2(x+4) - 8$

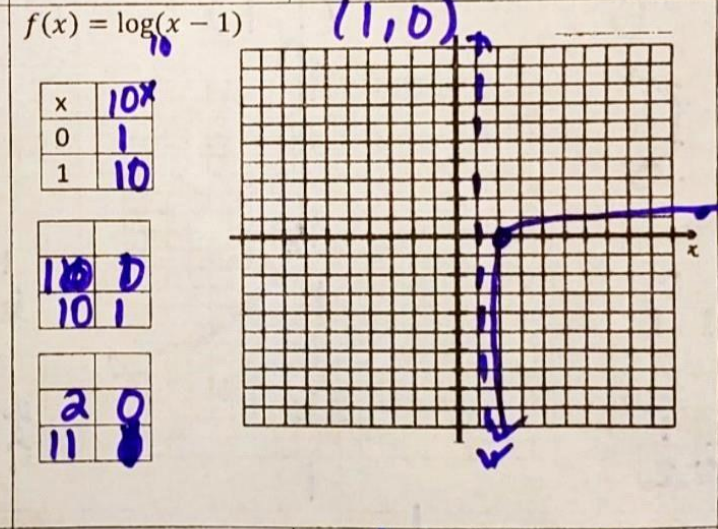
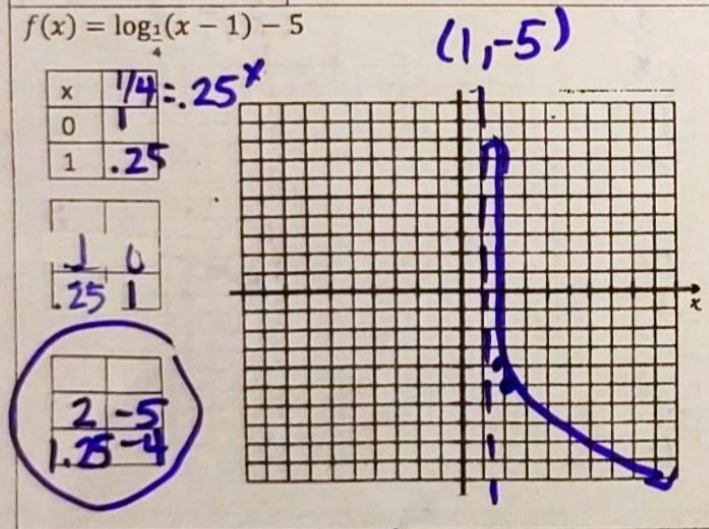
stretch by 2, $\leftarrow 4, \downarrow 8$

Graphing Logarithmic Functions Notes ~ Graph and identify the characteristics for each Exponential Function.



Asymptote	$x = -6$
Domain	$(-6, \infty)$
Range	$(-\infty, \infty)$
Increase/Decrease	$(-6, \infty)$
End Behavior	Left: As $x \rightarrow -\infty, y \rightarrow -6$ Right: As $x \rightarrow \infty, y \rightarrow \infty$
Transformations	$\leftarrow 6, \uparrow 4$

Asymptote	$x = -5$
Domain	$(-5, \infty)$
Range	$(-\infty, \infty)$
Increase/Decrease	$(-5, \infty)$
End Behavior	Left: As $x \rightarrow -\infty, y \rightarrow -5$ Right: As $x \rightarrow \infty, y \rightarrow \infty$
Transformations	$\leftarrow 5, \downarrow 4$



Asymptote	$x = 1$
Domain	$(1, \infty)$
Range	$(-\infty, \infty)$
Increase/Decrease	$(1, \infty)$
End Behavior	Left: As $x \rightarrow -\infty, y \rightarrow 1$ Right: As $x \rightarrow \infty, y \rightarrow -\infty$
Transformations	$\rightarrow 1, \downarrow 5$

Asymptote	$x = 1$
Domain	$(1, \infty)$
Range	$(-\infty, \infty)$
Increase/Decrease	$(1, \infty)$
End Behavior	Left: As $x \rightarrow -\infty, y \rightarrow 1$ Right: As $x \rightarrow \infty, y \rightarrow \infty$
Transformations	$\rightarrow 1$