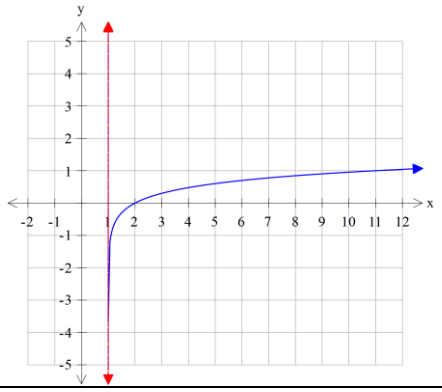
Answers to Classwork– Logarithmic Functions

1. $\log_3\left(\frac{1}{9}\right) = -2$	2. $\log_{36}(6) = \frac{1}{2}$
3. $\log_e(P) = t$ or $\ln(P) = t$	4. $10^{-1} = \frac{1}{10}$
5. $e^0 = 1$	6. $3^N = t$

7.



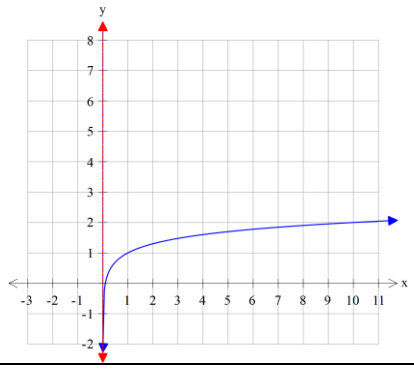
New anchor pts: $(2,0),(11,1)$

Domain: $(1,\infty)$

Range: $(-\infty,\infty)$

Asymptote: $x = 1$

8.



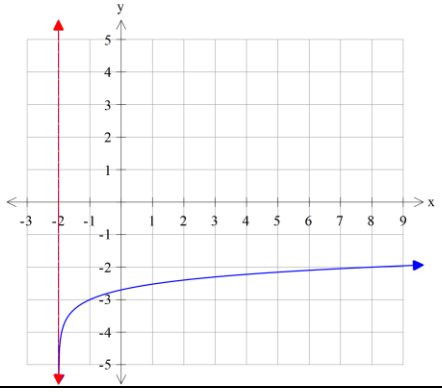
New anchor pts: $(1,1),(10,2)$

Domain: $(0,\infty)$

Range: $(-\infty,\infty)$

Asymptote: $x = 0$

9.



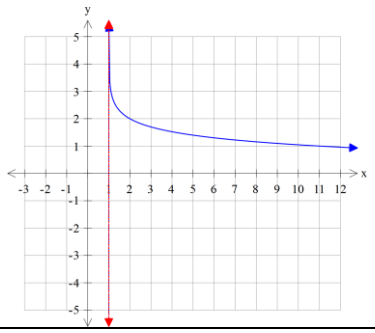
New anchor pts: $(-1,-3),(8,-2)$

Domain: $(-2,\infty)$

Range: $(-\infty,\infty)$

Asymptote: $x = -2$

10.



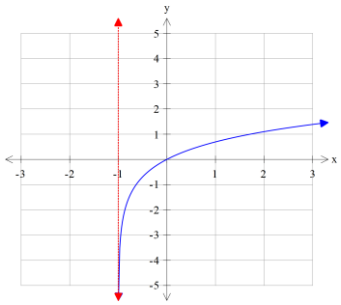
New anchor pts: $(2,2),(11,1)$

Domain: $(1,\infty)$

Range: $(-\infty,\infty)$

Asymptote: $x=1$

11.



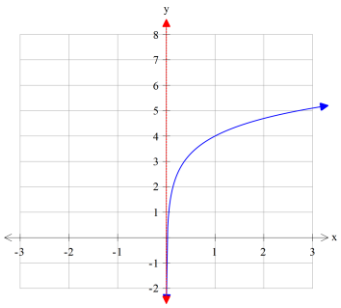
New anchor pts: $(0,0),(1.7,1)$

Domain: $(-1,\infty)$

Range: $(-\infty,\infty)$

Asymptote: $x=-1$

12.



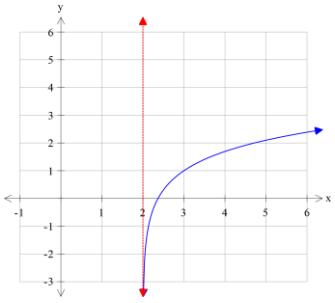
New anchor pts: $(1,4),(2.7,5)$

Domain: $(0,\infty)$

Range: $(-\infty,\infty)$

Asymptote: $x=0$

13.



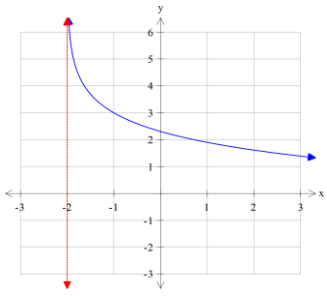
New anchor pts: $(3,1),(4.7,2)$

Domain: $(2,\infty)$

Range: $(-\infty,\infty)$

Asymptote: $x=2$

14.



New anchor pts: $(-1,3),(0.7,2)$

Domain: $(-2,\infty)$

Range: $(-\infty,\infty)$

Asymptote: $x=-2$