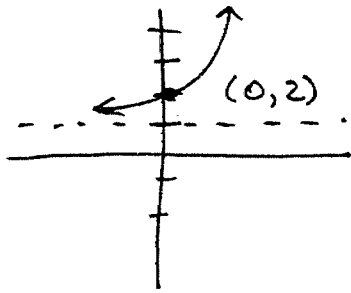


## Graphing Exponentials + Logs

1.  $f(x) = 2^x + 1$

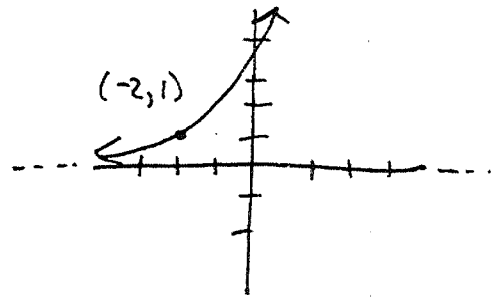


D:  $(-\infty, \infty)$

R:  $(1, \infty)$

h.a.  $y = 1$

2.  $f(x) = 2^{x+2}$

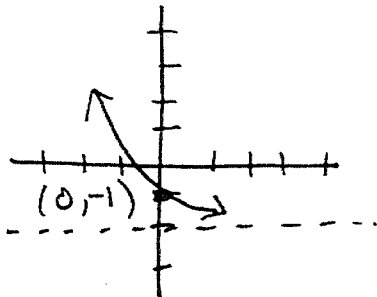


D:  $(-\infty, \infty)$

R:  $(0, \infty)$

h.a.  $y = 0$

3.  $f(x) = 3^{-x} - 2$

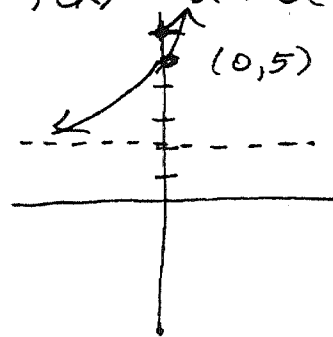


D:  $(-\infty, \infty)$

R:  $(-2, \infty)$

h.a.  $y = -2$

4.  $f(x) = 2 + 3(4)^x$

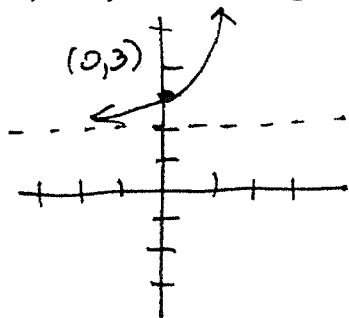


D:  $(-\infty, \infty)$

R:  $(2, \infty)$

h.a.  $y = 2$

5.  $f(x) = 2 + 3^{x/2}$

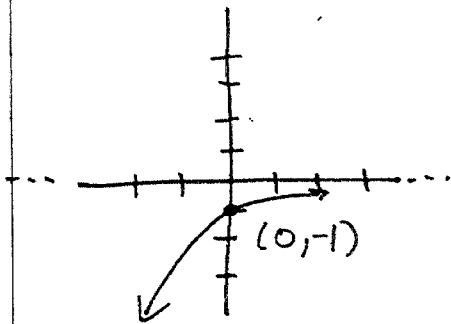


D:  $(-\infty, \infty)$

R:  $(2, \infty)$

h.a.  $y = 2$

6.  $f(x) = -e^{-x}$

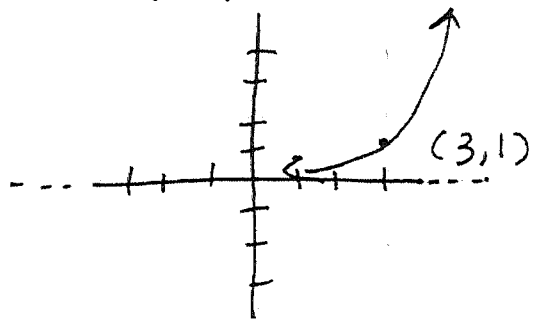


D:  $(-\infty, \infty)$

R:  $(-\infty, 0)$

h.a.  $y = 0$

7.  $f(x) = e^{x-3}$

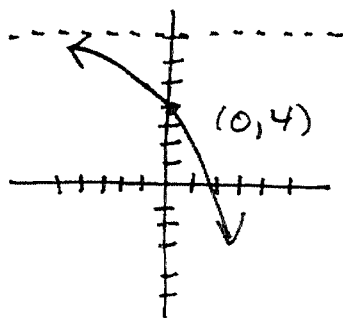


D:  $(-\infty, \infty)$

R:  $(0, \infty)$

h.a.  $y = 0$

8.  $f(x) = 7 - 3e^{2x}$

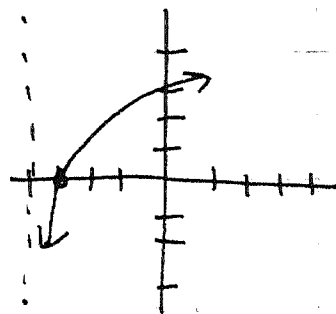


D:  $(-\infty, \infty)$

R:  $(-\infty, 7)$

h.a.  $y = 7$

9.  $f(x) = \ln(x+4)$

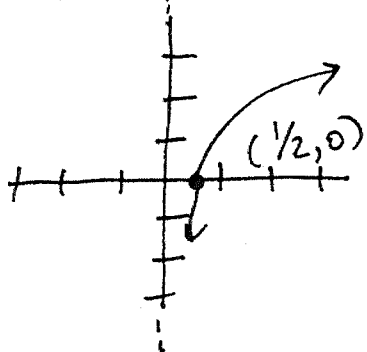


D:  $(-4, \infty)$

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

v.a.  $x = -4$

10.  $f(x) = \ln(2x)$

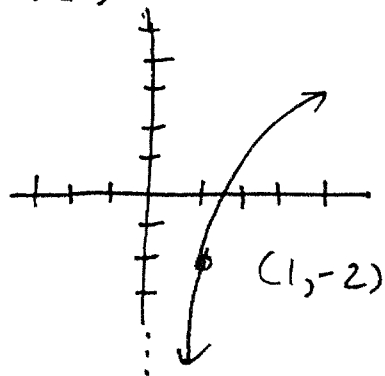


D:  $(0, \infty)$

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

v.a.  $x = 0$

11.  $f(x) = 3 \ln x - 2$

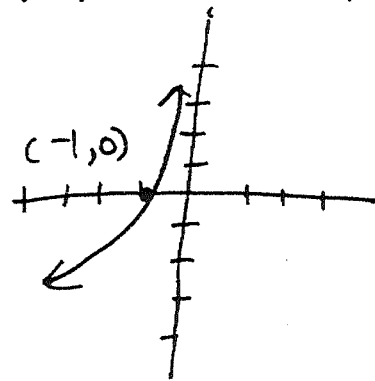


D:  $(0, \infty)$

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

V.a.  $x = 0$

12.  $f(x) = -\ln(-x)$

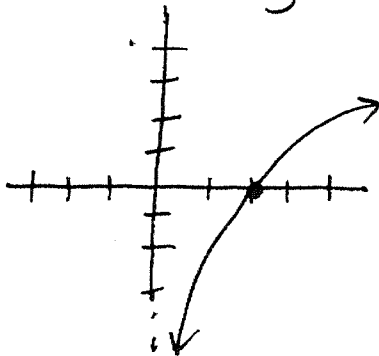


D:  $(-\infty, 0)$

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

V.a.  $x = 0$

13.  $f(x) = \log\left(\frac{1}{2}x\right)$

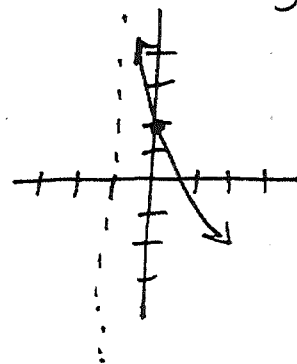


D:  $(0, \infty)$

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

V.a.  $x = 0$

14.  $f(x) = 2 - \log(x+1)$

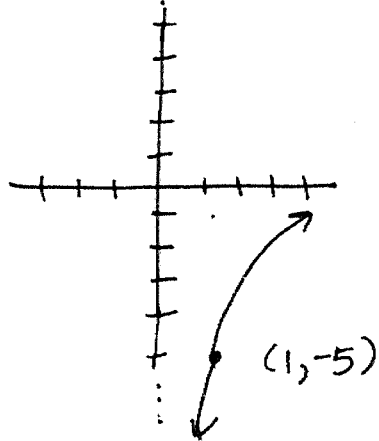


D:  $(-1, \infty)$

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

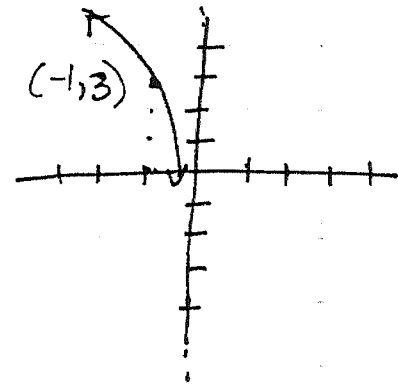
V.a.  $x = -1$

15.  $f(x) = -5 + 2 \log x$



D:  $(0, \infty)$   
R:  $(-\infty, \infty)$   
V.a.  $x = 0$

16.  $f(x) = \log(-x) + 3$



D:  $(-\infty, 0)$   
R:  $(-\infty, \infty)$   
V.a.  $x = 0$