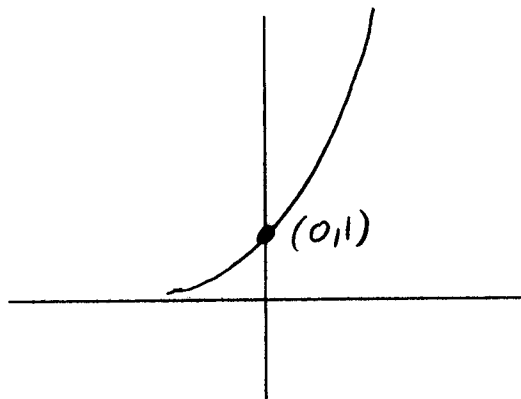


S-8

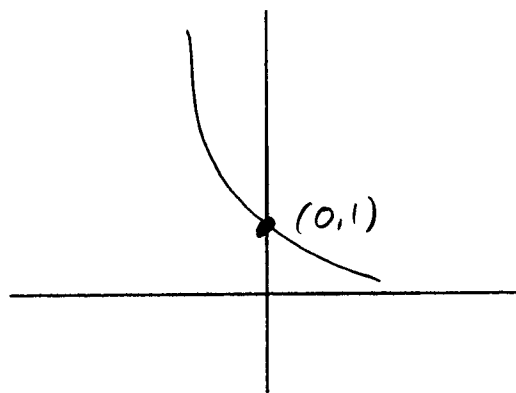
Summary of Chapter Eight.

Sketch each exponential function. Be sure to label clearly any x - or y -intercepts.

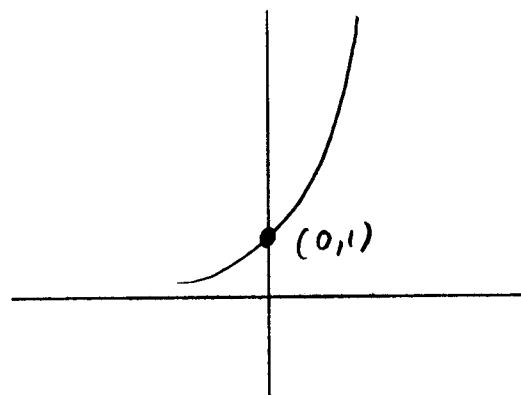
1. $y = 3^x$



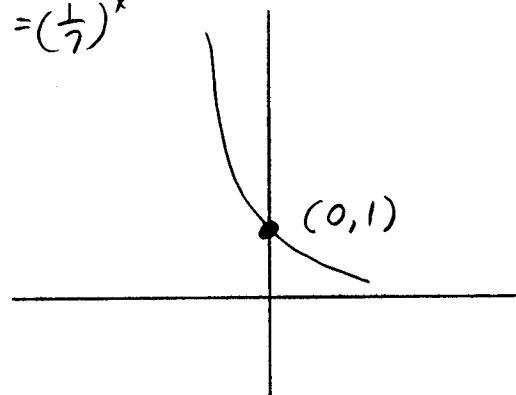
3. $y = \left(\frac{1}{5}\right)^x$



2. $y = e^x$



4. $y = 7^{-x}$
 $= \left(\frac{1}{7}\right)^x$



Find the value of each expression.

5. $5^2 = 25$

8. $\log_2\left(\frac{1}{8}\right) = -3$

6. $6^{-1} = \frac{1}{6}$

9. $\log_e(\sqrt{e}) = \log_e(e^{1/2}) = \frac{1}{2}$

7. $7^0 = 1$

10. $\log_3(-1) = \text{no such number}$
because 3^x is always > 0