

d. $3^{n-2} = 27$

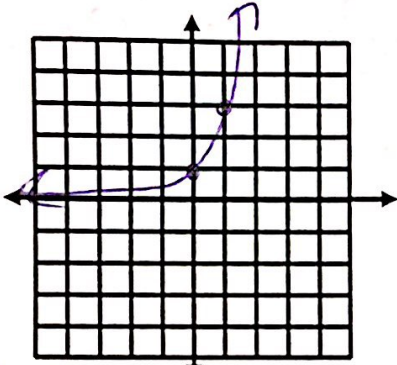
e. $(\frac{1}{9})^m = 81^{m+4}$

f. $(\frac{1}{16})^{x+1} = (\frac{1}{8})^{2x-1}$

Homework

Graph each equation.

1. $y = 3^x$

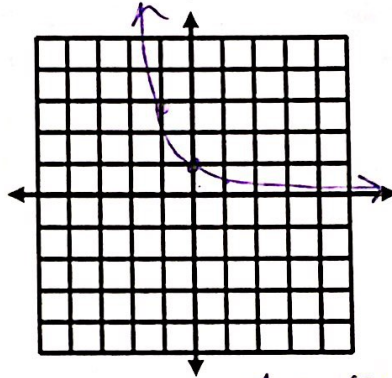


Asymptote: $y = 0$

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

Range: $(0, \infty)$

2. $y = (\frac{1}{3})^x$

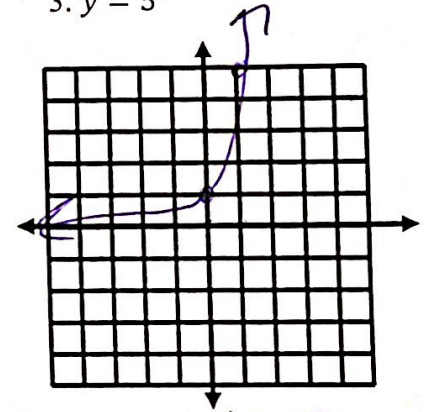


Asymptote: $y = 0$

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

Range: $(0, \infty)$

3. $y = 5^x$

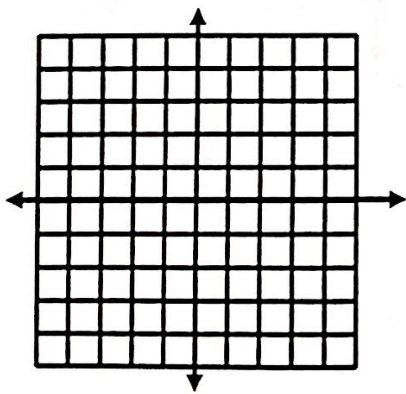


Asymptote: $y = 0$

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

Range: $(0, \infty)$

4. $y = 3^{-x}$

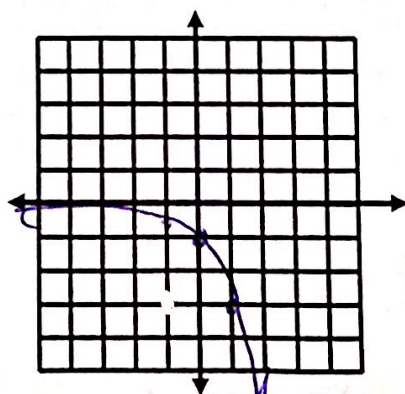


Asymptote: _____

Domain: _____

Range: _____

5. $y = -3^x$

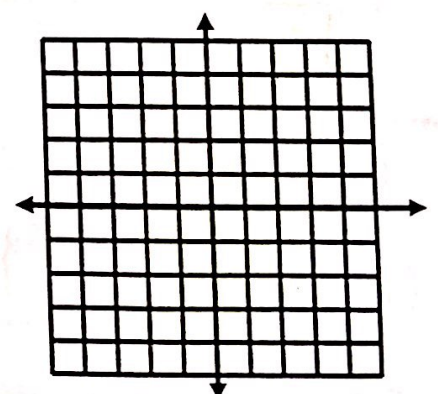


Asymptote: $y = 0$

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

Range: $(-\infty, 0)$

6. $y = (\frac{1}{5})^x$

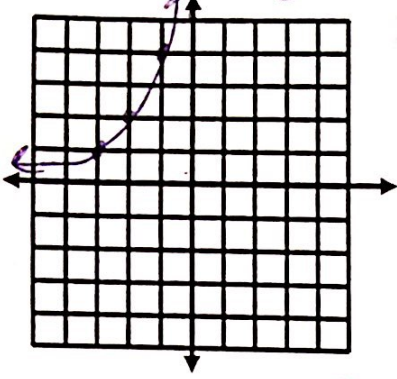


Asymptote: _____

Domain: _____

Range: _____

7. $y = 2^{x+3}$ *UB*

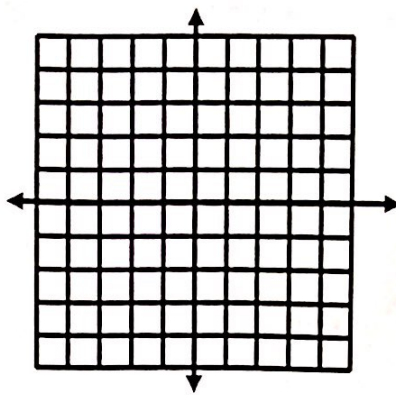


Asymptote: $y = 0$

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

Range: $(0, \infty)$

8. $y = 2^x - 3$

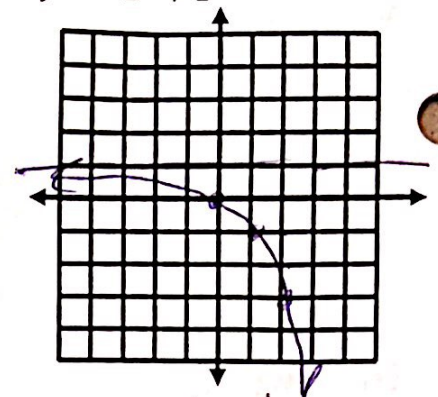


Asymptote: _____

Domain: _____

Range: _____

9. $y = -2^x + 1$



Asymptote: $y = 1$

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

Range: $(-\infty, 1)$

Use a calculator to evaluate each expression to the nearest ten thousandth.

10. $e^{1.6}$

11. $\sqrt[3]{e}$

12. $4\sqrt[3]{e^2}$

Solve the following exponentials. Show all work!

13. $\left(\frac{1}{3}\right)^{x-6} = 3^x$

$x = 3$

14. $\left(\frac{1}{8}\right)^x = 2^{x-6}$

$x = 3/2$

15. $9^{3x} = 27^{x+2}$

$x = 2$

16. $\left(\frac{1}{6}\right)^{3x+2} = 36^{-3x}$

$x = 2/3$

17. $4^{3x+2} = 32^x$

$x = -4$

18. $16^{n+2} = 4$

$n = -3/2$