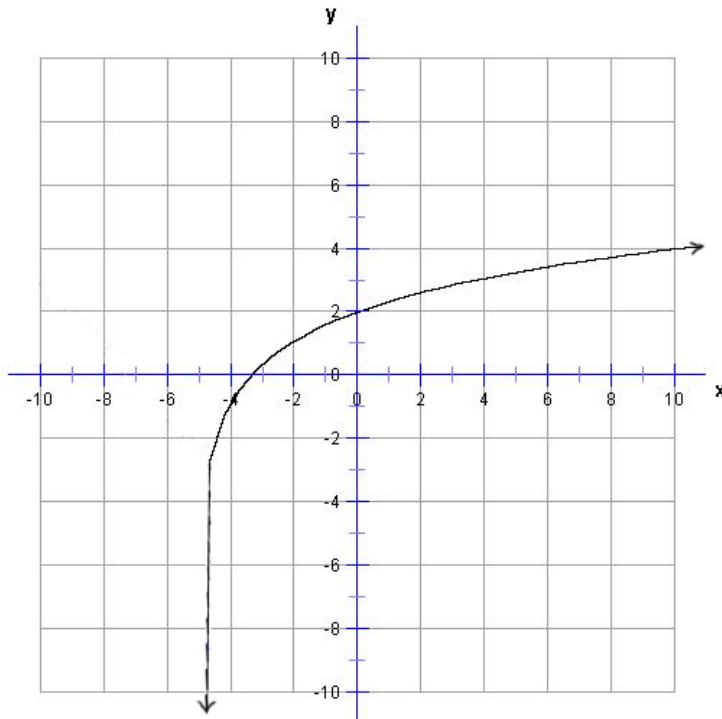


Pre-Calculus Homework #8 – Answer Key

1) $36 \quad 4 \quad \frac{64}{125} \quad -3$

2) $\log_8 \left(\frac{x^7}{y^6 k^{10}} \right)$

3) Domain: $x > -5$ Range: All Real Numbers or \mathbb{R}



4) $x = \frac{3\log 3 + \log 6}{3\log 6 - 2\log 3}$ or $\frac{\log(162)}{\log(24)}$ exactly

4) $x = 1.601$ approximately

5) $\frac{4}{3}\log_5 x - \frac{2}{3}\log_5 a - 2\log_5 m$

6) $x = 4$

7) 67559 years

8) \$43503.51 \$88.69

9) $x = -6, x = \frac{9}{5}$

10) 600 years

11) 9 years

12) No Solutions

13) 1600 years

14) 4.6% \$1447.87

15) $x = \frac{1}{2e^3} - \frac{5}{2}$ or $x = \frac{1-5e^3}{2e^3}$ $x \approx -2.475$

16) 18,000,000,000,000

17) 2043

18) $x = 2$

19) 398.4 km

20) 7 days