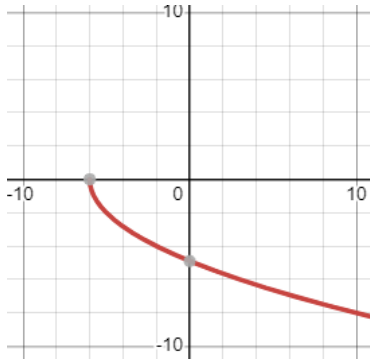


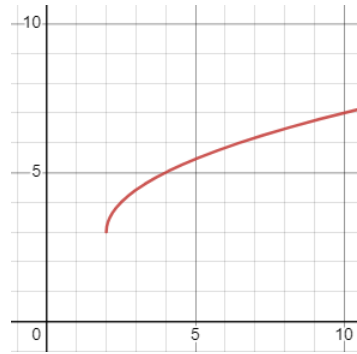
Alg 2 Spring Exam Review Key 2022

CHAPTER 5

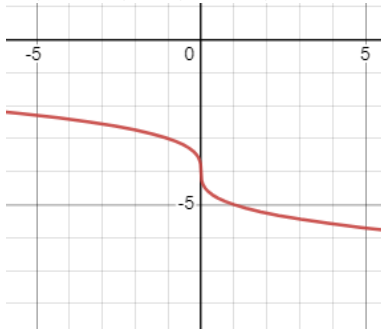
1. $3x^2 + 6x + 2$
2. $P(-2) = -3$
3. $f(-2) = -8$
4. $\frac{12}{x^8}$ & $\frac{x^{16}}{-8}$
5. $\frac{1}{2x^4}$ & $2x^4$
6. $p^{-1} = \sqrt[3]{63m} \approx 10.8$ thousand cans
7. $d^{-1} = \frac{s^2}{174}$
8. $16a^4 - 32a^3b + 24a^2b^2 - 8ab^3 + b^4$
9. $4(2a^2 - b)(4a^4 + 2a^2b + b^2)$
10. $20x^4y^2\sqrt{2y}$
11. x^3
12. $7\sqrt{5} + \sqrt{8} = 7\sqrt{5} + 2\sqrt{2}$
13. $n = -5$
14. $\frac{16x^{\frac{8}{3}}}{y^9}$
15. $x = 2$
16. $2\sqrt{3}$
17. $f(x) = x^3 - 6x^2 - 9x + 50$
18. $12 - 3\sqrt{2} - 16\sqrt{5} + 4\sqrt{10}$
19. $-2\sqrt{2} + 2\sqrt{106}$
20. D: $[-6, \infty)$; R: $(-\infty, 0]$, R_x , VS 2, left 6 units,



21. D: $[2, \infty)$, R: $[3, \infty)$, HC $\frac{1}{2}$, right 2u, up 3u



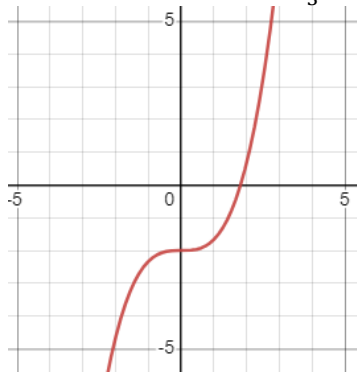
22. D: $(-\infty, \infty)$, R: $(-\infty, \infty)$, R_x , down 4u



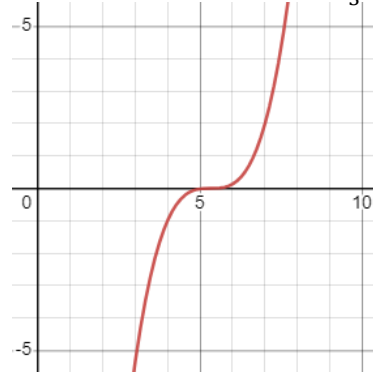
23. D: $(-\infty, \infty)$, R: $(-\infty, \infty)$, R_x , VS 2, up 5u



24. D: $(-\infty, \infty)$, R: $(-\infty, \infty)$, VC $\frac{1}{3}$, down 2u

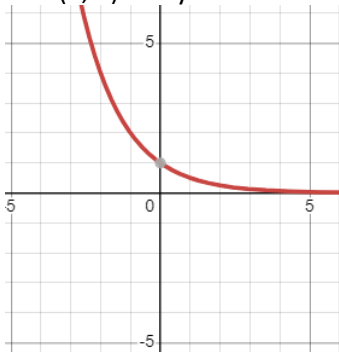


25. D: $(-\infty, \infty)$, R: $(-\infty, \infty)$, HS $\frac{4}{3}$, right 4 u

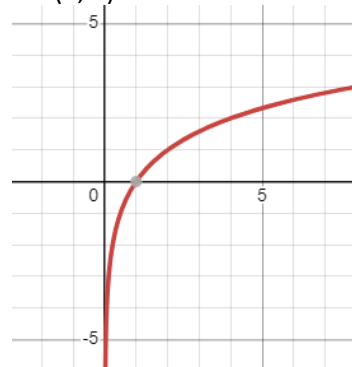


CHAPTER 6

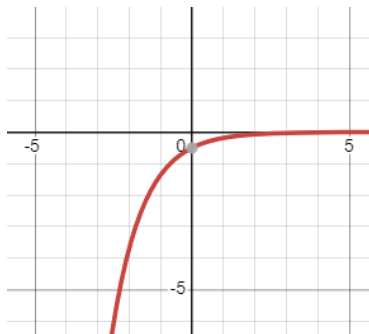
1. PP: $(0, 1)$ HA: $y = 0$



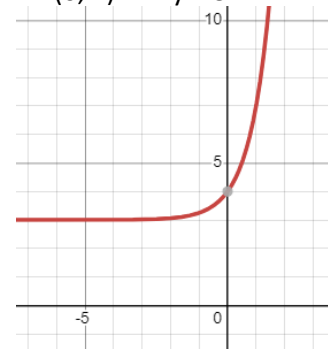
2. PP: $(1, 0)$ VA: $x = 0$



3. PP: $(0, -\frac{1}{2})$ HA: $y = 0$



4. PP: $(0, 4)$ HA: $y = 3$



5. $\log 7 - \log 5$

6. $\log_3 9 + 5 \log_3 r$

7. $\log_2 5$

8. $\log_4 5$

9. $6^2 = 36$

10. $x = 2$

11. 6

12. 3

13. $x = \frac{\log 16}{\log 5} + 2 \approx 3.723$

14. $y = 512$

15. $a = -5$

16. $x = 4$

17. $x = 1$

18. $x = 5$

19. $a - b$

20. $\approx \$1153$

21. 1st Bank of Houston

22. A little after 6 years after the fire.

CHAPTER 7

1. $20x^4y^2\sqrt{2y}$

2. HA: $y = 1$, VA: $x = -3$, Hole: $(-1, 0)$

3. $\frac{x+5}{x+3}$

4. $\frac{x}{x-8}$

5. $\frac{8}{15}$

6. $\frac{2x+10}{(x+2)(x-2)}$ Or $\frac{2(x+5)}{(x+2)(x-2)}$

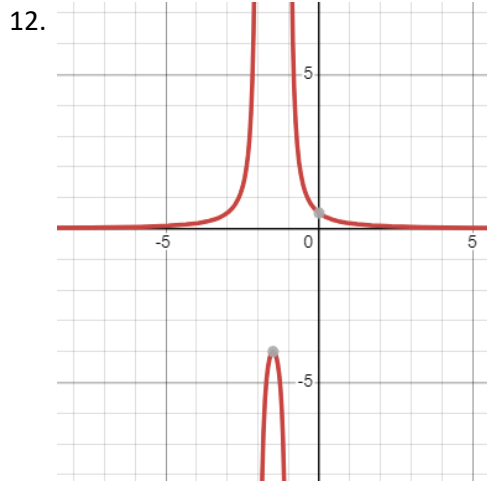
7. $\frac{6-5x}{4}$ Or $\frac{-5x+6}{4}$

8. $\frac{4}{3m+1}$

9. $k = -54$

10. $x = 1$

11. $k = \frac{5}{3}, y = \frac{175}{3} \approx 58.\bar{3}$



13. $x = -2$

14. $x = \frac{9}{5}$

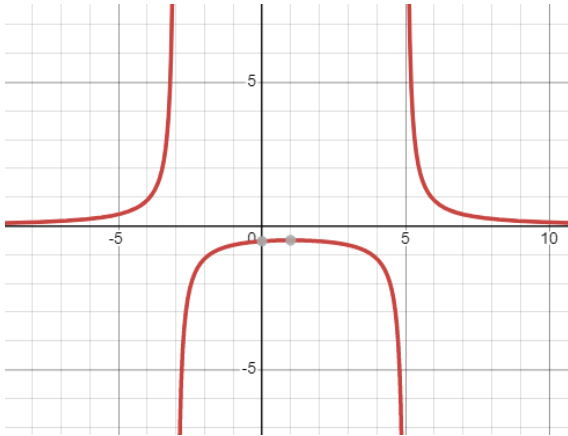
15. $x = -6, 3$

16. HA: $y = 1$, VA: $x = -3$, Hole: $(2, \frac{1}{5})$

17. HA: $y = \frac{3}{2}$, VA: $x = \frac{1}{2}, -5$

18. HA: slant, VA: $x = 0$

19. HA: $y = 0$, VA: $x = 5, -3$



20. $f^{-1}(x) = \frac{5}{2}(x + 3)$ OR $f^{-1}(x) = \frac{5}{2}x + \frac{15}{2}$

21. $g^{-1}(x) = \frac{\sqrt{x}+1}{3}$ OR $g^{-1}(x) = \frac{\sqrt{x}}{3} + \frac{1}{3}$