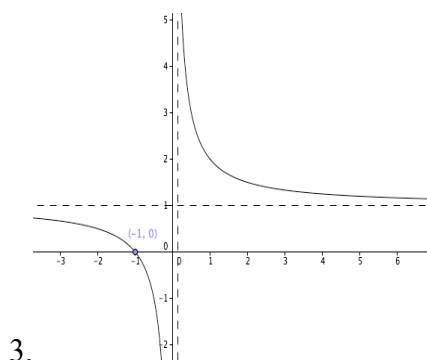
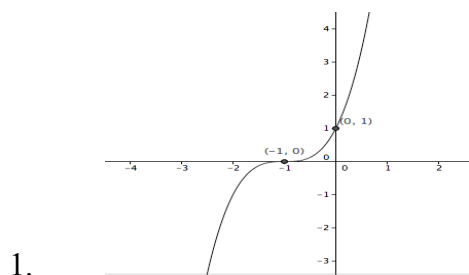
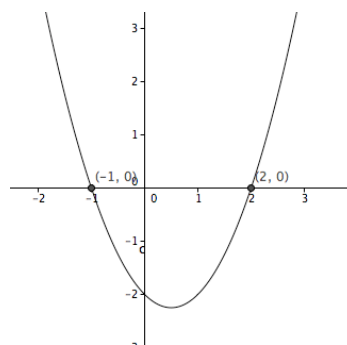


PreCalculus Review Answers

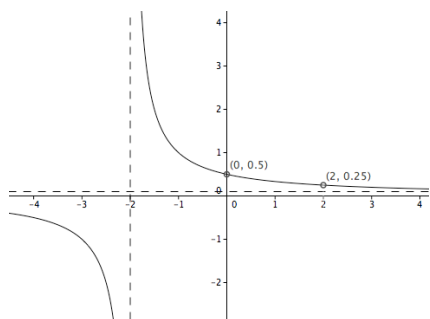
Selected graphs



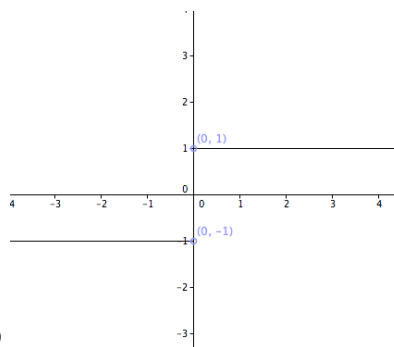
3.



6.



8.



9.

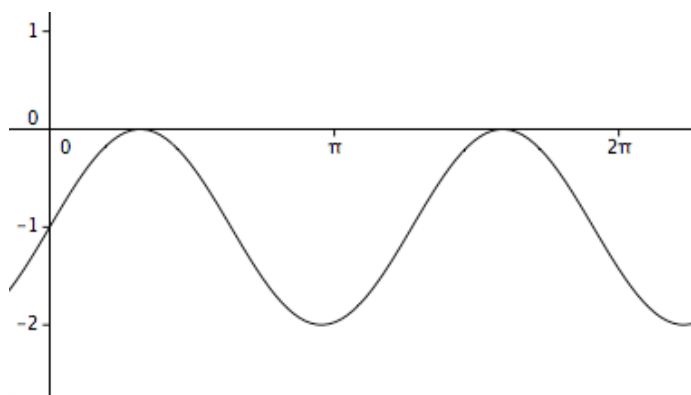
Domain

Range

- | | | |
|----|---|---|
| 1. | $(-\infty, \infty)$ | $(-\infty, \infty)$ |
| 2. | $[1, \infty)$ | $(-\infty, -4]$ |
| 3. | $(-\infty, 0) \cup (0, \infty)$ | $(-\infty, 1) \cup (1, \infty)$ |
| 4. | $(-\infty, \infty)$ | $(-\infty, 1] \cup (1, \infty)$ |
| 5. | $(0, \infty)$ | $(-\infty, \infty)$ |
| 6. | $(-\infty, \infty)$ | $[-9/4, \infty)$ |
| 7. | $(-\infty, \infty)$ | $(0, \infty)$ |
| 8. | $(-\infty, -2) \cup (-2, 2) \cup (2, \infty)$ | $(-\infty, 0) \cup (0, 1/4) \cup (1/4, \infty)$ |
| 9. | $(-\infty, 0) \cup (0, \infty)$ | Set Notation: $\{y \mid y = -1, 1\}$ |

10. $\left\{\frac{-2 \pm \sqrt{2}}{2}\right\}$
11. $\left\{-2, \frac{1}{2}, 3\right\}$
12. $x = 4$
13. $\{-2, 1 \pm \sqrt{7}\}$
14. $x = -1$
15. $\{-3, 4\}$
16. $x = 6$
17. $x = e^2 - 1$
18. $\{-60, 68\}$
19. $\left[-4, \frac{2}{3}\right]$
20. $\left(-\infty, -\frac{1}{2}\right) \cup \left(\frac{1}{3}, \infty\right)$
21. $\frac{5x-2}{2x(x+2)}$
22. $x^2 - 2x + 3 - \frac{7}{x+2}$
23. $x(x+3)(x^2 - 3x + 9)$
24. $x(2x-3)(x+4)$
25. $-2(x+4)(x+10)$
26. $3x^{-1/2}(x-2)(x-1)$
27. $(x+5)^{-3/2}(x+4)$
28. $267, -267, \text{ odd}$
29. $2, 2, \text{ even}$
30. $3\sqrt{11}, -3\sqrt{11}, \text{ odd}$
31. $-5/7$
32. $1/13$
33. 2
34. $\frac{-1}{x(x+h)}$
35. $y - 5 = \frac{1}{3}(x - 3); y = \frac{1}{3}x + 4$
36. $y + 3 = -\frac{7}{3}(x - 2); y = -\frac{7}{3}x + \frac{5}{3}$
37. $y - 2 = -\frac{1}{3}(x - 5); y = -\frac{1}{3}x + \frac{11}{3}$
38. $y - 4 = 8(x - 0); y = 8x + 4$
39. $(1, 4)$
40. $(7/25, -1/25)$
41. $\frac{1}{2}\log x + 3\log y - 3\log z - 2$
42. $\frac{3}{5} + \frac{2}{5}\ln x + \frac{4}{5}\ln y$
43. 5
44. $\ln(x^3(x-3))$
45. $-\sqrt{2}$
46. $-\frac{2\sqrt{3}}{3}$
47. $-\frac{\sqrt{3}}{3}$
48. $2\pi/3$
49. $\pi/4$
50. $-\pi/3$
51. $4/5$
52. 2
53. $\left\{\frac{\pi}{2}, \frac{7\pi}{6}, \frac{11\pi}{6}\right\}$
54. $x = \pi$
55. $\left\{\frac{\pi}{6}, \frac{\pi}{2}, \frac{5\pi}{6}, \frac{3\pi}{2}\right\}$
56. $\left\{\frac{7\pi}{12}, \frac{11\pi}{12}, \frac{19\pi}{12}, \frac{23\pi}{12}\right\}$
57. $\cos \theta$
58. $\sin \theta$

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



60. $\left(\frac{\pi(2k-1)}{2}, \frac{\pi(2k+1)}{2}\right), k \in \mathbb{Z}$

