

Key to chapter 1 review problems

P152-153-154

1-10

- 1.d
- 2.f
- 3.i
- 4.h
- 5.b
- 6.j
- 7.g
- 8.c
- 9.a
- 10.e

11-18

11. a. all real numbers b. all real numbers
12. a. all real numbers b. all real numbers
13. a. all real numbers b. $[0, \infty)$
14. a. all real numbers b. $[5, \infty)$
15. a. all real numbers b. $[8, \infty)$
16. a. $[-2, 2]$ b. $[-2, 0]$
17. a. $(-\infty, 0) \cup (0, 2) \cup (2, \infty)$ b. $(-\infty, 0) \cup (0, \infty)$
18. a. $(-3, 3)$ b. $[1/3, \infty)$
19. Continuous

21-28

21. a . Vertical Asymptotes at $x=0$ and $x=5$

b. $y=0$

22. $x=4$, $y=3$

23.a. None b. $y=7$ and $y=-7$

24. a. $x=-1$ b. $y=1$ and $y=-1$

25. $(-\infty, \infty)$

26. $[1, \infty)$

27. $(-\infty, -1) \cup (-1, 1) \cup (1, \infty)$

28. $(-\infty, -2) \cup (-2, 0]$

33-40

33.a) None b) -7 at $x=-1$

34.a) 2 at $x=-1$ b) -7 at $x=-1$

35.a) -1 at $x=0$ b) None

36.a) 1 at $x=2$ b) -1 at $x=-2$

37. Even

38. Odd

39. Neither

40. Odd

41-48

41. $(x-3)/2$

42. x^3+8

43. $2/x$

44. $6/x - 4$

45. 46.47.48. See pic attached

53-55

53. $\sqrt{x^2 - 4}$

54. $x-4$

55. $\sqrt{x} \cdot (x^2 - 4)$