

**1.4 hw key (p. 67, 37-44 and p. 79, 35-53)**

**p. 67**

37. a) 10      b) 5      c) 6      d) 1.5  
38. a) 8      b) 2.75      c) 1.5      d) 2.666  
39. a) 64      b) 2      c) 12      d) 8  
40. a) 3      b) 1.5      c) 729      d) 9

41.  $\lim_{x \rightarrow 0} (x + 3) = 3$

42.  $\lim_{x \rightarrow 0} (x^2 - 5) = -5$

43.  $\lim_{x \rightarrow -1} \left( \frac{(x+1)(x-1)}{x+1} \right) = \lim_{x \rightarrow -1} (x-1) = -2$

44.  $\lim_{x \rightarrow -2} \left( \frac{(3x-1)(x+2)}{x+2} \right) = \lim_{x \rightarrow -2} (3x-1) = -7$

**p. 79**

35.  $x = 0$ , nonremovable      36.  $x = 6$ , nonremovable  
37. NONE      38. NONE  
39.  $x = 2, -2$ , nonremovable      40. NONE  
41. NONE      42. NONE  
43.  $x = 1$  (nonrem),  $x = 0$  (rem)      44.  $x = 2, -2$ , nonremovable  
45. NONE      46.  $x = 5$  (rem),  $x = -5$  (nonrem)  
47.  $\frac{x+2}{(x-5)(x+2)}$ ,  $x = 5$  (nonrem),  $x = -2$  (rem)  
48.  $\frac{x+2}{(x-3)(x+2)}$ ,  $x = 3$  (nonrem),  $x = -2$  (rem)  
49.  $x = -7$ , nonremovable (this is a special situation, graph it and see. It will be on your next test.)  
50.  $x = 5$ , nonremovable (this is a special situation, graph it and see. It will be on your next test.)  
51. NONE  
52. NONE  
53.  $x = 2$ , nonremovable