

9.2 Power Functions and Their Graphs

- 1) a) Domain = $\{x : - < x < \}$
 b) Range = $\{y : - < y < \}$
 c) Quadrants I and III
- 3) a) $x = 2$
 b) $x = -2.97$
 c) $x = -1$ or $x = 1$
- 5) a) $x = \pm\sqrt{5}$
 b) No solution
 c) $x = 12$ or $x = -2$
- 7) a) $x = 27.9841$
 b) No solution
 c) $x = 18.89568$
 d) $x = -18.89568$
- 9) $x = 3$ or $x = 1$
 $x = 1$ is an extraneous solution
- 11) The functions are not inverses of each other
- 13) a) Yes
 b) No
- 15) Both functions are inverses of each other.
- 17) $\sqrt{40} \approx 6.3$.
- 19) a) Basic absolute value function
 b) Basic square root function
 c) Basic linear function
 d) Basic reciprocal function
 e) Basic quadratic function
 f) Basic cubic function