

35.  $x = 5$

36.  $x = 6$

37.  $x \approx -7.66$

38.  $x = 1$  and  $x = 9$

39.  $x \approx -2.17$

40.  $x \approx \pm 1.68$

41.  $x = \pm 2$

42.  $x \approx -2.47$

43.  $x = \pm 3$

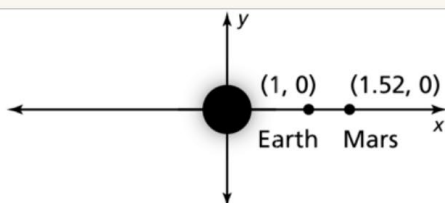
44.  $x = -6$

45. potatoes: 3.7%; ham: 2.4%; eggs: 1.7%

46.  $n$  is an even integer; 2; Because  $n$  is even and  $a$  is positive,  $a$  has both a positive and a negative  $n$ th root.

47. 3, 4;  $\sqrt[4]{81} = 3$  and  $\sqrt[4]{256} = 4$

48.



Sample answer:  $d = 1.88^{2/3} \approx 1.52$ , so Mars must be approximately 1.52 astronomical units from the Sun.

49. about 753  $\text{ft}^3/\text{sec}$

50. 1.12 m/sec; 1.47 m/sec; 2.15 m/sec

51.  $5^5$

52.  $\frac{1}{4^5}$

53.  $\frac{1}{z^6}$

54.  $\frac{81x^4}{16}$

55. 5000

56. 0.04

57. 0.82

58. 6,930,000