HW6.A

Section 6.1

page 244-246. 37, 38, 61, 62, 67.

37. a. 0.5059

b. 0.1153

38. a. 0.1342

b. 0.3044.

61. $\mu = 481, \sigma = 41$,

a). $P(x < 450) = P(z < -0.76) = 0.2236$.

b). $P(400 \leq x \leq 500) = P(-1.98 \leq z \leq 0.46) = 0.6772 - 0.0239 = 0.6533$.

c). Yes, because only about 2 percent of rainbow trout of that age is less than 400 millimeters long.

62. $\mu = 1387, \sigma = 161$.

a). $P(1100 \leq x \leq 1200) = P(-1.78 \leq z \leq -1.16) = 0.0855$.

b). $P(x > 1500) = P(z > 0.70) = 0.2420$..

c). No. Because $P(x > 1550) = P(z > 1.01) = 0.1562$, that is, about 16 percent of broilers weigh more than 1550 grams.

67. $\mu = 4.1, \sigma = 0.2$.

a). p=0.35, z=-0.39, x=4.1-0.39*0.2=4.022.

b). p=0.92, z=1.41, x=4.1+1.41*0.2=4.382.

c). The median is just the mean, 4.1.