2.5 #3, 8, 10, 11, 17

3) $(5)(700) = 3500$

$= \sqrt{5}\sigma_{\bar{x}} = (\sqrt{5})(20) = 44.72$ hrs

8) a) $(12)(12.02) = 144.24$ oz

b) $(\sqrt{12})(.03) = .1040$ oz

c) $\mu_{\bar{x}} = \mu = 12.02$ oz

d) $\frac{0.03}{\sqrt{12}} = 0.0087$ oz

e) $\left(\frac{0.03}{.005}\right)^2 = 36$

10) a) $(.260)(1500) + (2.75)(500) + (2.90)(300)$

$= \$6415$

b) $\sqrt{(2.68)^2(180)^2 + (2.75)^2(90)^2 + (2.90)^2(40)^2}$

$\sqrt{6.76(32400) + 7.56(8100) + 8.41(1600)}$

$= \$541.97$

11) a) $(20)(25) = 500$ miles

b) $(\sqrt{20})(2) = 8.944$ miles

c) μ 25 miles $n = 20$ $\sigma = 2$ miles

$= 25$ miles $= \mu$

d) $2/\sqrt{20} = 0.4472$ miles

17) a) $= 40 - 25 = \nu \quad .36/\sqrt{10} = .114$

b) $(0.36)^2 / (0.05)^2$

$= 51.84 = 52$