

9.18 From the data in Exercise 8.1, compute $\bar{X} = 50$, $\bar{Y} = 40.2$, $s_X^2 = 58$, $s_Y^2 = 63.33$, and the pooled variance estimator

$$s_p^2 = \frac{(n-1)s_X^2 + (m-1)s_Y^2}{n+m-2} = 61.1625.$$

Sample sizes are $n = 14$ and $m = 20$. The pooled variance estimator is used because of the assumption of equal variances.