# Exercise 9

(a) Enter the differences into the TI-83. The estimate of the population mean difference would be the sample mean difference: $\bar{d} = 4.167$.

(b) That would be the sample standard deviation of the differences: $s_D = 6.308$.

(c) The standard error of $\bar{d}$ is $\text{SE}(\bar{d}) = \dfrac{s_D}{\sqrt{n}}$. The value is $\dfrac{6.308}{\sqrt{12}} = 1.821$. This is the amount by which we expect $\bar{d}$ typically to deviate from the true difference $\mu_D$.