```
> #This script was used to do the problems on
> #   a particular worksheet8
> ###################
> ## C A S E:  1  ##
> ###################
> sigma <- 10.73   # population standard deviation
> c_level <- 0.860 # set the confidence level
> m_o_e <- 5.2     # set the desired margin of error
> #   here is the detailed approach
> alpha <- 1-c_level    # area outside confidence interval
>                       # find z value with half that area
>                       # to the right of z
> z <- qnorm( alpha/2, lower.tail=FALSE )
> z
[1] 1.475791
> n <- (z*sigma/m_o_e )^2  # compute n
> n
[1] 9.273475
> ceiling(n)   # this rounds the value up to next highest
[1] 10
> # then do it again, this time the short way
> source("../findsampsize.R")  #load the function
> find_samp_size(sigma, c_level, m_o_e )
[1] 10
> #
> ###################
> ## C A S E:  2  ##
> ###################
> sigma <- 12.13   # population standard deviation
> c_level <- 0.880 # set the confidence level
> m_o_e <- 4.5     # set the desired margin of error
> find_samp_size(sigma, c_level, m_o_e )
[1] 18
> ####################
> ## C A S E:  3  ##
> ###################
> sigma <- 13.99   # population standard deviation
> c_level <- 0.780 # set the confidence level
> m_o_e <- 6.0     # set the desired margin of error
> find_samp_size(sigma, c_level, m_o_e )
[1] 9
> ####################
> ## C A S E: 4  ##
> ###################
> sigma <-  7.78   # population standard deviation
> c_level <- 0.780 # set the confidence level
> m_o_e <- 2.5     # set the desired margin of error
> find_samp_size(sigma, c_level, m_o_e )
[1] 15
> ####################
> ## C A S E:  5  ##
> ###################
> sigma <- 25.51   # population standard deviation
> c_level <- 0.940 # set the confidence level
> m_o_e <- 8.6     # set the desired margin of error
> source("../findsampsize.R")  #load the function
> find_samp_size(sigma, c_level, m_o_e )
[1] 32
> ####################
> ## C A S E:  6  ##
```

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> ##################
> sigma <- 37.79   # population standard deviation
> c_level <- 0.940 # set the confidence level
> m_o_e <- 8.0     # set the desired margin of error
> find_samp_size(sigma, c_level, m_o_e )
[1] 79
> #
```