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1: > #This script was used to do the problems on
2: > #   a particular worksheet8
3: > #####
4: > ## C A S E: 1 ##
5: > #####
6: > sigma <- 10.73 # population standard deviation
7: > c_level <- 0.860 # set the confidence level
8: > m_o_e <- 5.2 # set the desired margin of error
9: > # here is the detailed approach
10: > alpha <- 1-c_level # area outside confidence interval
11: > # find z value with half that area
12: > # to the right of z
13: > z <- qnorm( alpha/2, lower.tail=FALSE )
14: > z
15: [1] 1.475791
16: > n <- (z*sigma/m_o_e )^2 # compute n
17: > n
18: [1] 9.273475
19: > ceiling(n) # this rounds the value up to next highest
20: [1] 10
21: > # then do it again, this time the short way
22: > source("../findsampsiz.R") #load the function
23: > find_samp_size(sigma, c_level, m_o_e )
24: [1] 10
25: > #
26: > #####
27: > ## C A S E: 2 ##
28: > #####
29: > sigma <- 12.13 # population standard deviation
30: > c_level <- 0.880 # set the confidence level
31: > m_o_e <- 4.5 # set the desired margin of error
32: > find_samp_size(sigma, c_level, m_o_e )
33: [1] 18
34: > #####
35: > ## C A S E: 3 ##
36: > #####
37: > sigma <- 13.99 # population standard deviation
38: > c_level <- 0.780 # set the confidence level
39: > m_o_e <- 6.0 # set the desired margin of error
40: > find_samp_size(sigma, c_level, m_o_e )
41: [1] 9
42: > #####
43: > ## C A S E: 4 ##
44: > #####
45: > sigma <- 7.78 # population standard deviation
46: > c_level <- 0.780 # set the confidence level
47: > m_o_e <- 2.5 # set the desired margin of error
48: > find_samp_size(sigma, c_level, m_o_e )
49: [1] 15
50: > #####
51: > ## C A S E: 5 ##
52: > #####
53: > sigma <- 25.51 # population standard deviation
54: > c_level <- 0.940 # set the confidence level
55: > m_o_e <- 8.6 # set the desired margin of error
56: > source("../findsampsiz.R") #load the function
57: > find_samp_size(sigma, c_level, m_o_e )
58: [1] 32
59: > #####
60: > ## C A S E: 6 ##
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61: > #####
62: > sigma <- 37.79 # population standard deviation
63: > c_level <- 0.940 # set the confidence level
64: > m_o_e <- 8.0 # set the desired margin of error
65: > find_samp_size(sigma, c_level, m_o_e )
66: [1] 79
67: > #
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