
Random m&m's



{Adapted from "Statistics in Action" by Watkins, Scheaffer, Cobb}

DO NOT TURN THIS SHEET OVER UNTIL YOU ARE TOLD TO DO SO!

Goal: Estimate the average number of m&m's per pile for the 100 piles pictured on the back.

1) When I give you the signal, you will have 10 seconds to look at the back side of this sheet and make a guess as to the average number of m&m's per pile. Do not use a pencil or paper...just guess.

Guess: _____ Enter this guess on the appropriate dotplot on the board.

2) Select 5 piles that are, in your judgment, representative of the entire population. Calculate the average pile size and enter the result on the dotplot on the board.

Representative Average Number: _____ Enter on the appropriate dotplot.

Compare the two distributions...

3) Use a random number table or your calculator to select a SRS of 5 distinct piles. Calculate the average number of m&m's for these piles and enter the information on the dotplot. Repeat this process until you have 5 sample averages.

SRS 1: Average Area: _____

SRS 2: Average Area: _____

SRS 3: Average Area: _____

Plot each average on the appropriate dotplot.

SRS 4: Average Area: _____

SRS 5: Average Area: _____

The true average number of m&m's for the 100 piles is: _____

What is the point of this exercise?



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