

Midterm Lab Quiz Fall 1999

NAME: YOU MUST RETURN YOUR COPY OF THIS EXAM WITH YOUR NAME ON IT. (Points are shown in parentheses.)

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⚡ (50) Suppose a coin is manufactured to be unfair. The probability of head for this biased coin is .3

A) If the coin is flipped 20 times, use one of StatCenter's probability tools to find the probability that the result will be exactly 4 heads. Exactly 6 heads.

B) If there are 20 flips, what is the probability that there will be BETWEEN 6 and 10 heads?

C) What is the probability that there will be outside of 6 and 10 heads?

D) If the coin is flipped 30 times what is the probability that there will be BETWEEN 6 and 10 heads?

⚡ (50) A researcher develops a standardized test of Spelling. Based on a national sample of thousands of research participants, he concludes that his test of spelling ability (TSA) is distributed normally with $\mu = 300$ and $\sigma = 20$.

A) Use a StatCenter probability tool to find the probability that a randomly selected person will score between 280 and 320 on the Test of Spelling Ability (TSA).

B) Use the probability tool to find the probability of a TSA score either below 260 or above 340.

C) Use the probability tool to find the probability of a TSA score below 290.

D) Use the probability tool to find the probability of a TSA score above 290.

⌘ Either now in lab or by the end of the week complete the Detect Difference Game at the Easy and Medium levels. Also complete the Difference to Inference Game for levels 1, 2, and 3 (the easiest three levels), earning at least 1400 dollars at each of these levels.