Statistics 1 Assignment 14 Chapter 8 Section 1-2

For this assignment, you will need 10 index cards. On the first card, write a zero, the next card a one and continue until you write nine on the last index card.

With the number facing down, shuffle the cards a few times and select one card at random. Repeat this 20 times and report the frequency of each number below:

|  |  |
| --- | --- |
| Number | Frequency |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |

Now, with each experiment, choose 4 cards at random without replacement and average the number on the 4 cards. Repeat this 20 times and report the frequency:

|  |  |
| --- | --- |
| Number range | Frequency |
| 0 to 0.9999 |  |
| 1 to 1.9999 |  |
| 2 to 2.9999 |  |
| 3 to 3.9999 |  |
| 4 to 4.9999 |  |
| 5 to 5.9999 |  |
| 6 to 6.9999 |  |
| 7 to 7.9999 |  |
| 8 to 8.9999 |  |

Now, with each experiment, choose 4 cards at random WITH replacement (shuffle between selections) and average the number on the 4 cards. Repeat this 20 times and report the frequency:

|  |  |
| --- | --- |
| Number range | Frequency |
| 0 to 0.9999 |  |
| 1 to 1.9999 |  |
| 2 to 2.9999 |  |
| 3 to 3.9999 |  |
| 4 to 4.9999 |  |
| 5 to 5.9999 |  |
| 6 to 6.9999 |  |
| 7 to 7.9999 |  |
| 8 to 9 |  |

Finally, with each experiment, choose 9 cards at random WITH replacement and average the number on the 9 cards. Repeat this 20 times and report the frequency:

|  |  |
| --- | --- |
| Number range | Frequency |
| 0 to 0.9999 |  |
| 1 to 1.9999 |  |
| 2 to 2.9999 |  |
| 3 to 3.9999 |  |
| 4 to 4.9999 |  |
| 5 to 5.9999 |  |
| 6 to 6.9999 |  |
| 7 to 7.9999 |  |
| 8 to 9 |  |