

Complete the frequency table below:

SUM	2	3	4	5	6	7	8	9	10	11	12
FREQ											

Answer the following questions using the data above:

1. What is the experimental probability of a 7?
2. What is the experimental probability of a 7 or 11? (Pass line bet wins in craps)
3. What is the experimental probability of a 2, 3, or a 12? (Pass line bet loses in craps)

Next using theoretical probability, answer the following questions.

4. What is the probability of a 7?
5. What is the probability of a 7 or 11? (Pass line bet wins in craps)
6. What is the probability of a 2, 3, or a 12? (Pass line bet loses in craps)

Now combine data from three other students to complete the following table.

SUM	2	3	4	5	6	7	8	9	10	11	12
FREQ											

Using the data above ($n=100$), answer questions 7-9.

7. What is the experimental probability of a 7?

8. What is the experimental probability of a 7 or 11? (Pass line bet wins in craps)

9. What is the experimental probability of a 2, 3, or a 12? (Pass line bet loses in craps)

Discuss how the answers for 1-3 compare to the answers for 7-9 and how they each compare to the theoretical probabilities in answers 4-6.

Keystrokes for the *fx-9750G Plus*

From the Main Menu, press 2 for STAT.

If there are data in List 1, follow these directions:

- *Press F6 (make sure that the highlighted cell is List 1 by pressing the right/left arrow)*
- *Press F4 (delete all) then press F1 (yes)*

Enter Data:

- Type the random number data in List 1 and List 2.
With appropriate cell highlighted, type numerical value then EXE to store.

Find One-Variable Statistics:

- Press F2 (calculate) then F6 (set)
- With 1-Var Xlist highlighted, press F1
- Press EXIT
- Press F1 (1-variable)
- Use the down arrow key to scroll for more values

Create a Histogram: In the STAT mode

- Press EXIT
- Press F1 (graph), F4 (make sure Graph 1 is turned on) then press EXIT
- Press F6 (set), Press down arrow key to Graph Type, F6 then press F1 for Histogram then EXE.
- Press down arrow key to Xlist, press F1, press 3 (List 3), then frequency 1.
- Press EXIT, F1 for Graph 1, Start 1, Width 1, then EXE and the graph should appear
- To Trace, press SHIFT F1

If your graph does not appear, follow these directions:

- *Press SHIFT then MENU*
- *Press F1 to change Stat Window to Auto*

Press EXIT