

## Answer on Question #70774 – Math – Statistics and Probability

### Question

Suppose you are working for a company in the music business. They make stereos, musical instruments and produce CD's. They decide to do a survey on dance preferences by college students. Basically, they wanted to know about college students' interests and practices on dance music. A survey was administered to a random sample of 37 students and recorded in Table 1:

A – Ironic dance B – Pro dance C – Sway dance  
D – Dad-dance E – Twerk dance

Male	Female	Male	Female	Male
A	A	A	A	E
C	E	C	C	A
A	A	C	B	E
A	C	A	D	D
A	A	B	A	A
C	D	E	B	B
D	A	D	D	A
D	A			

Based on Table 1 in Question 1:

- Prepare a multiple frequency table for dance preferences of both genders.
- Using your frequency table, draw a multiple bar chart to represent the information.
- Briefly discuss and compare the percentage of favorite and least favorite dance preferences of both genders.

### Solution

a)

Male

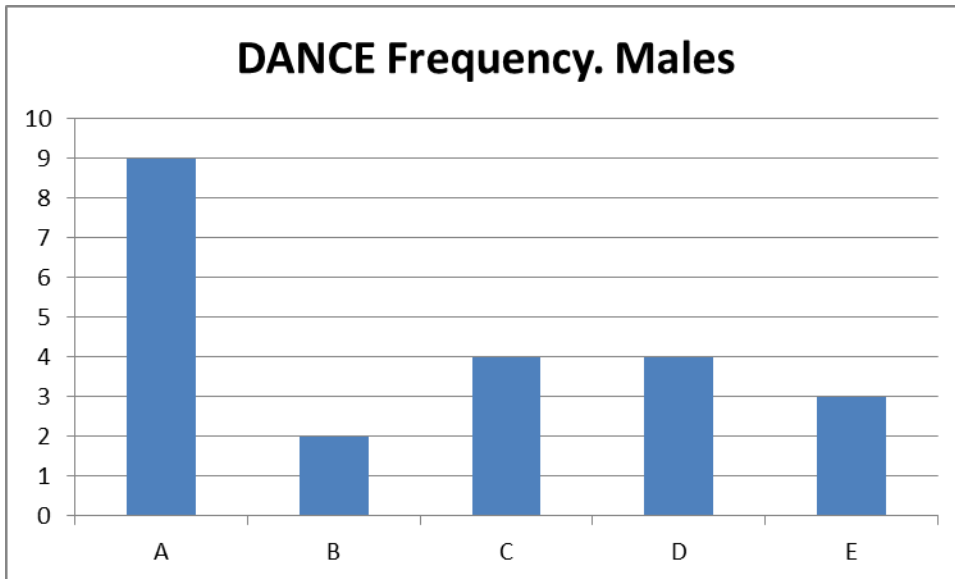
Dance	Frequency	Relative Frequency
A	9	0.41
B	2	0.09
C	4	0.18
D	4	0.18
E	3	0.14

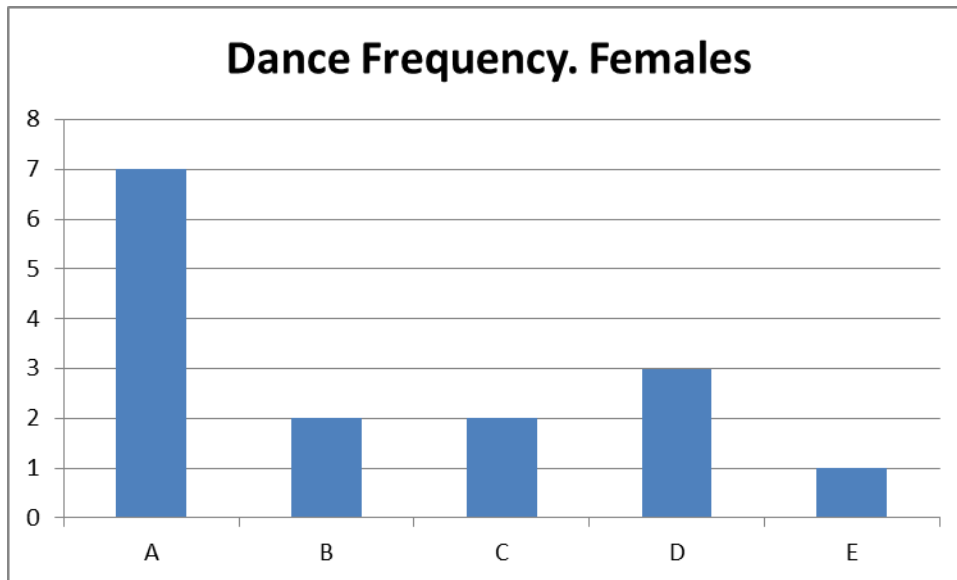
Female

Dance	Frequency	Relative Frequency
A	7	0.47
B	2	0.13
C	2	0.13
D	3	0.20
E	1	0.11

b)

Bar Charts





c) The percentage of the favorite dance (A) is 4.5 times more than the least favorite dance (B) for males.

The percentage of the favorite dance (A) is 7 times more than the least favorite dance (E) for females.