## Question \#66418, Math / Statistics and Probability

A survey on a sample of students taking elementary Statistics was conducted. The data shown in Table 1 represents the current semester of each student. Please take note 1=Semester 1, 2=Semester 2, 3=Semester 3, 4=Semester 4, and 5=Other semester.

Table 1 / Jadual 1

| 4 | 3 | 3 | 2 | 2 | 1 | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2 | 1 | 1 | 2 | 4 | 5 | 3 | 3 |
| 2 | 1 | 3 | 2 | 4 | 1 | 1 | 2 |
| 3 | 4 | 2 | 2 | 1 | 2 | 1 | 2 |
| 1 | 3 | 2 | 2 | 1 | 1 | 4 | 3 |
| 4 | 5 | 1 | 3 | 4 | 3 | 2 | 1 |
| 1 | 2 | 2 | 1 | 1 | 2 | 1 | 3 |
| 3 | 2 | 1 | 1 | 1 | 2 | 1 | 4 |

a) Construct a frequency and relative frequency distribution table of the student's (4) Semester of study.
b) Construct a bar chart based on the frequency table in (a). (4)
c) Hence given your comments based on the bar chart obtained in (b) (2)

## Answer.

a) Relative frequency $r=\frac{f}{64}$.

| Semester | Frequency | Relative frequency |
| ---: | ---: | ---: |
| 1 | 21 | 0.328125 |
| 2 | 20 | 0.3125 |
| 3 | 13 | 0.203125 |
| 4 | 8 | 0.125 |
| 5 | 2 | 0.03125 |

b)

c) The distribution is unimodal (has with one clear peak or most frequent value), right skewed (right tail is longer).

