

Solutions - Exercise 2

Unless otherwise stated, mean indicates the arithmetic mean.

- 1**
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|-----|--------------|---------------|-------------|
| (a) | mean = 15.14 | median = 12 | mode = 8 |
| (b) | mean = 11.67 | median = 11 | mode = 4 |
| (c) | mean = 49 | median = 48.5 | mode = none |
| (d) | mean = 54.4 | median = 56 | mode = 56 |
| (e) | mean = 9 | median = 10 | mode = none |
| (f) | mean = 6 | median = 7.5 | mode = 9 |
| (g) | mean = 5 | median = 5 | mode = 5 |
| (h) | mean = 10 | median = 1 | mode = 1 |
- 2** When it comes to items such as shoes and clothes merchants are more interested in finding out what sells the most.
- 3**
- | | | | |
|-----|-----------|--------------|----------|
| (a) | mean = 12 | median = 8.5 | mode = 5 |
|-----|-----------|--------------|----------|
- (b) mode
No, because most people sold more than 5 cars.
- (c) Adam was using the mean, which is not a good measure of central tendency given the presence of an extreme value 41.
- (d) The median is the best measure of central tendency here due to the nature of the data (quantitative with extreme values).
- 4**
- | | | | |
|-----|---------------|--------------|-------------|
| (a) | A: mean = 364 | median = 380 | mode = 500 |
| | B: mean = 500 | median = 450 | mode = none |
| | C: mean = 349 | median = 500 | mode = none |
- (b) A was using the mode, B was using the mean, C was using the median.
(c) I'd buy from B as it seems to be the most consistent.
- 5**
- | | | | |
|-----|-------|-----|------|
| (a) | false | (b) | true |
|-----|-------|-----|------|
- 6**
- | | | | |
|-----|------|-----|---|
| (a) | mode | (b) | median or mean if there are no extreme values |
|-----|------|-----|---|
- 7**
- | | | | |
|----|----------|------------|-------------|
| A: | mean = 4 | median = 1 | mode = none |
|----|----------|------------|-------------|
- 8**
- | | | | |
|-----|----|-----|---------------------------------|
| (a) | 13 | (b) | there is an extreme value (101) |
|-----|----|-----|---------------------------------|
- 9**
- | | | | |
|-----|-------------|---------------|-----------|
| (a) | mean = 31.4 | median = 33.5 | mode = 34 |
| (b) | 55 % | | |
- 10**
- | | |
|----------------|---------------|
| mean = 4324.73 | median = 3471 |
|----------------|---------------|
- The median is closer to more values than the mean is.
- 11**
- | | | |
|--------------|----------------|-------------------|
| mean = 56.38 | median = 49.85 | mode = 45.7, 47.8 |
|--------------|----------------|-------------------|
- Use mean or median.

12 arithmetic mean = 6.04

13 66.08

14 4.3 %