1a) Determine the range, mean and median of the following test scores.

Chapter 5: Statistical Reasoning
$\sigma=\sqrt{\frac{\sum(x-\bar{x})^{2}}{n}}$

History Test 1 Scores (out of 100)

| 90 | 84 | 77 | 66 |
| :--- | :--- | :--- | :--- |
| 89 | 84 | 77 | 65 |
| 86 | 82 | 75 | 65 |
| 86 | 81 | 72 | 61 |
| 84 | 79 | 70 | 56 |

b) If a score of 25 was added to the list, which measure of central tendency is most affected?
2) A set of data is normally distributed. What percent of the data is within one standard deviation of the mean? Two standard deviations?
3) The ages of participants in a bonspiel are normally distributed, with a mean of 40 and a standard deviation of 5 years.
a) What percent of the curlers are between 35 and 50?
b) If there are 125 participants in the bonspiel, how many are less than 35 years?
4) Karum and Brandon are laying interlocking bricks. Their supervisor records how many bricks they lay each hour.

| Hour | 1 | 2 | 3 | 4 | 5 | 6 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Karum | 212 | 193 | 204 | 195 | 182 | 216 |
| Brandon | 230 | 195 | 214 | 207 | 218 | 191 |

Which worker is more consistent? Hint: determine the standard deviation of each.
5. Refer to the histogram.

Results of the exam
a) How many students wrote the exam?
b) Sketch a frequency polygon.


