Quantitative Skills & Reasoning - Math 1001

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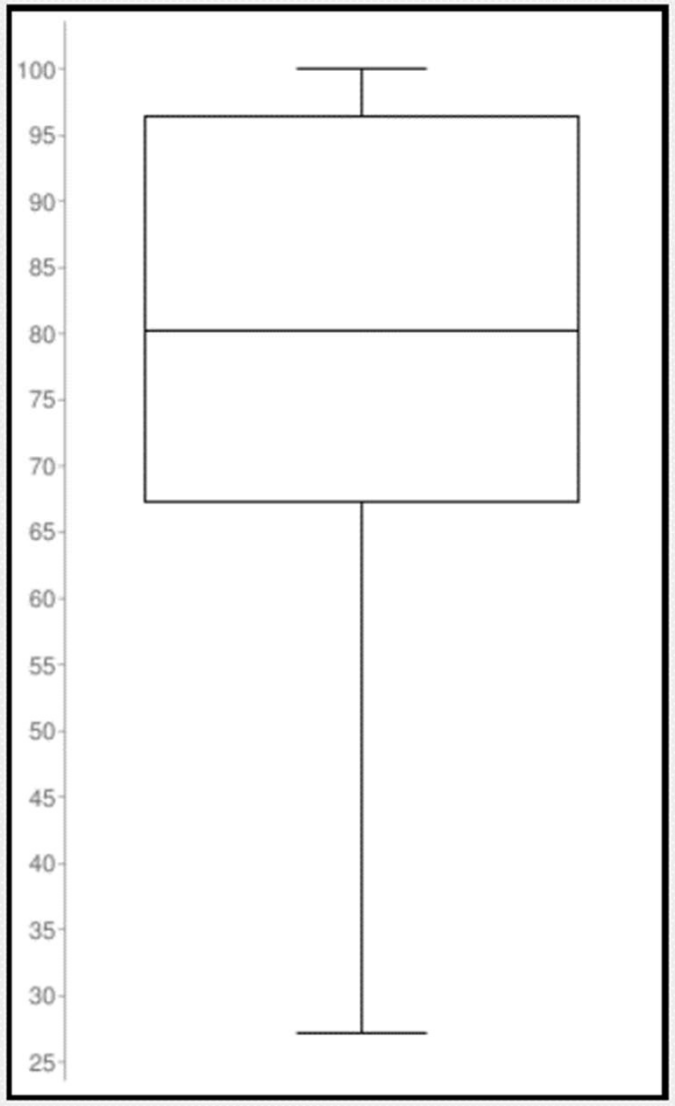
Zoom Video Conference 9-19-2019

1. **Midterm Grades**
2. **Test 2 Next Week – How to prepare**
3. **Answer Questions**
4. **Work a few problems**

Population size: 31
Median: 80.22
Minimum: 27.23
Maximum: 100.00
First quartile: 67.36
Third quartile: 96.43
Interquartile Range: 29.07
Outliers: none

Mode 100!



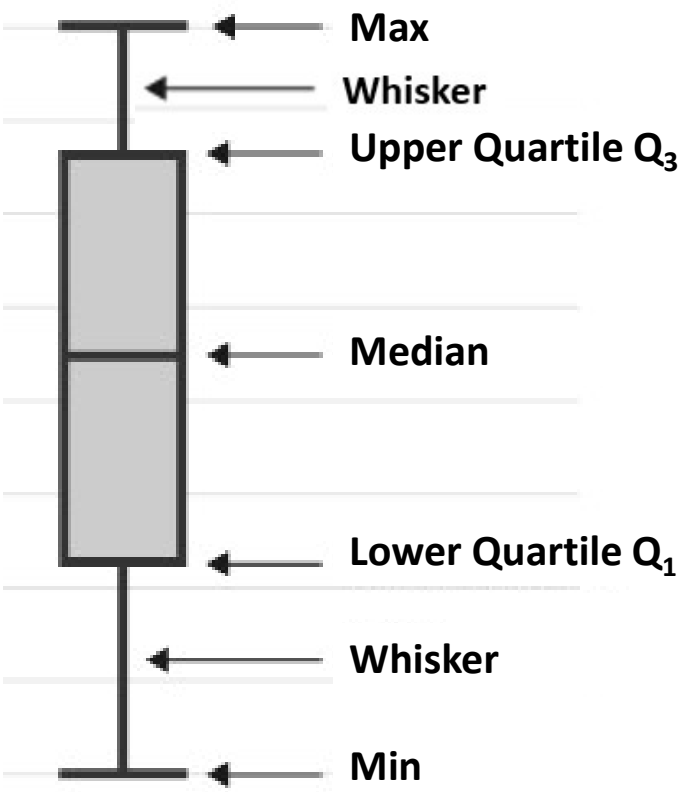
Math 1001 Midterm Grades

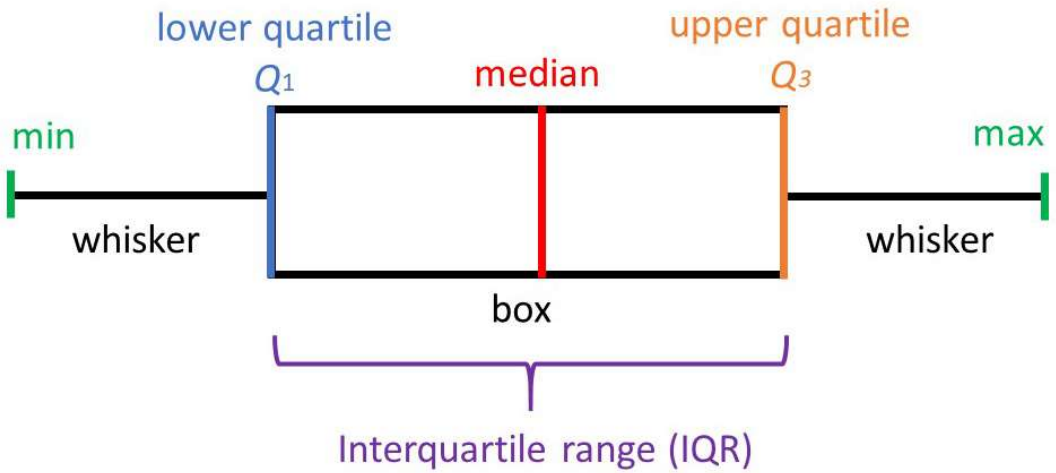
Ten – Early Warning Alerts

For Those With Early Warning Grades

1. Go over Test 1 - on (one to one) Zoom Video Conference with Dr. Brown
2. Agree to do 100% of Homework on-time
3. Discuss Plan With Dr. Brown
4. Report To Dr. Brown your HW Average Each Week
5. Request additional Zoom Video Conferences if needed.

Note: Everyone is encouraged to request a conference or ask questions if you need help in any area.


Max
Whisker
Upper Quartile Q_3
Median
Lower Quartile Q_1
Whisker
Min


lower quartile
Q_1
median
upper quartile
Q_3
min
max
whisker
whisker
box
Interquartile range (IQR)

Standard Deviation (cont.)

$$\text{standard deviation} = \sqrt{\frac{\text{sum of (deviations from the mean)}^2}{\text{total number of data values} - 1}}$$

Standard deviation can be written symbolically using the following formula

$$s = \sqrt{\frac{\sum(x_i - \bar{x})^2}{n - 1}}$$

s = standard deviation
x_i = individual data value
$\bar{x}$ = mean
n = total number of data values
$\sum$ = summation or sum of

✓ **Question 2**

Determine the mean, median, and mode of following data set:

88.3 58.1 75.3 60.5 88.3
88.3 68.8 45.7 51.5 65.2

45.7 51.5 58.1 60.5 65.2 68.8 75.3 88.3 88.3 88.3

Mean = 69.0

Median = 67

Mode = 88.3

Q1 = 58.1

Q3 = 88.3

Round your answers to the nearest hundredth as needed.

✓ **Question 4**

In a typical set of numerical data, which of the following is TRUE? *Check all that apply.*

- [x] The mode, if it exists, is always one of the data values.
- [ ] The median is always one of the data values.
- [ ] The mean is always one of the data values.
- [ ] None of these

✓

The data below represents the number of T-shirts sold per week by a student who started his own online T-shirt business. Find the mean number of T-shirts sold per week. (Round your answer to the nearest tenth if necessary.)

T-Shirts Sold per Week	Frequency
2	2
4	3
6	4
8	7

Mean = 6

Given the following data, find the following:
Round your answers to 2 decimal places as needed

33	2
48	32
37	64
25	55
61	92
50	10
5	86

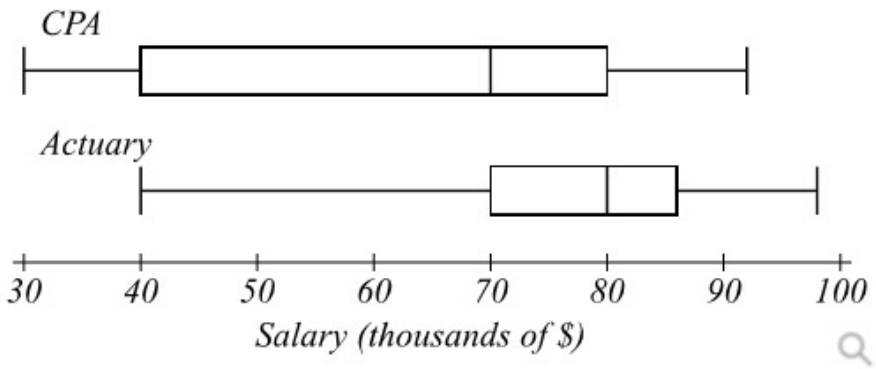
Mean = 42.86

Median = 42.5

Range = 90

Sample standard deviation = 27.77

The boxplot below shows salaries for Actuaries and CPAs.



Valerie makes the minimum salary for an Actuary. Riley makes the median salary for a CPA.

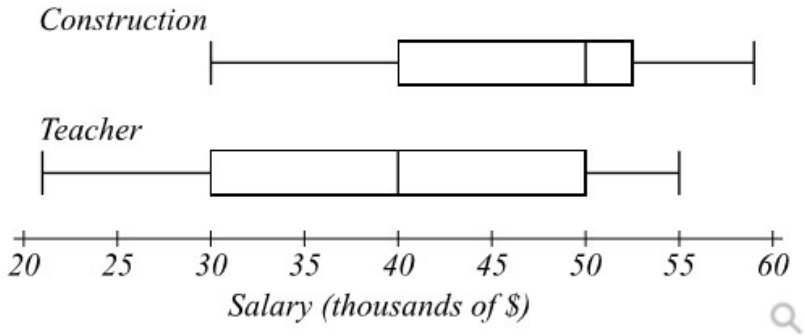
Who makes more money?

- (•) Riley
- ( ) Valerie

✓

How much more? $ 30000

The boxplot below shows salaries for Construction workers and Teachers.



Jennie makes the minimum salary for a construction worker. Markos makes the median salary for a teacher.

Who makes more money?

- (•) Markos
- ( ) Jennie

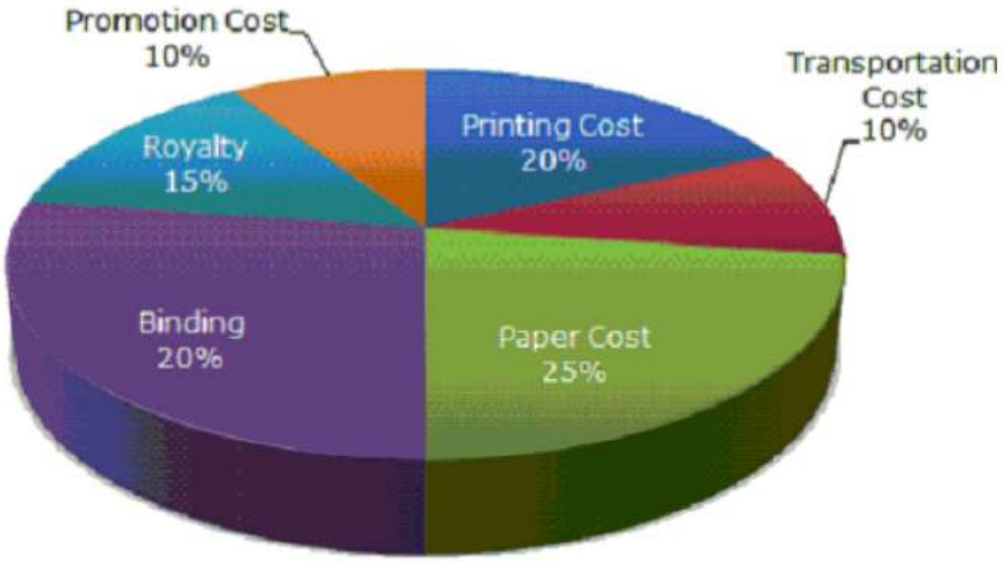
✓

How much more? $ 10000

17) The pie chart below shows the break down of the costs of printing and selling books for a publishing company.

If the total cost for one month's publications is $ 128,500, How much is:

a) The royalty cost ? _____ b) Printing cost? _____



22) The number of vehicles passing through a bank drive-up line during each 15-minute period was recorded. The results are shown below. Find the median number of vehicles going through the line in a fifteen-minute period.

20	22	20	23
23	20	25	22
30	26	26	24
19	26	20	15
10	22	22	22

We will also do

Mean =

Min =

Max =

Q1 =

Q3 =

Sx =

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