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## Assignment:

## Slide25:

Measuring the Central Tendency-Example

The values for salary (in thousands of dollars), shown in increasing order: 30, 36, 47, 50, 52, 52, 56, 60, 63, 70, 70, 110

Mean salary= 
$$(30+36+47+50+52+52+56+60+63+70+70+110)/12 = 58$$
  
Median =  $(52+56)/2 = 54$   
Mode = 52, 70

## Slide31:

Example of boxplot

The math scores of 12 students:

59, 60, 64, 65, 67, 70, 72, 74, 75, 76, 78, 80

1) Please show the five number summary:

Min= 59

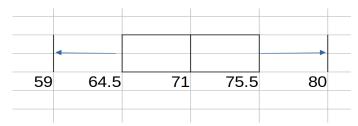
$$Q1 = (64+65)/2 = 64.5$$

Median= 
$$(70+72)/2=71$$

$$Q3 = (75+76)/2 = 75.5$$

$$Max = 80$$

2) Draw a boxplot



Lower Bound = 
$$64.5(Q1) - 1.5x11(IRQ) = 48$$
  
Upper Bound =  $75.5(Q3) + 1.5x11(IRQ) = 92$ 

Any number less than 48 or greater than 92 is considered an outlier. In this dataset, we have no such outliers.

## **Question:**

Is the 'Whiskers' means the Lower and Upper Bound?