

2/4 Algebra 1- Downing
★ Test Tomorrow!

Unit 5 Review

Ex) Data Set: 16, 19, 26, 27, 27, 30, 32, 33, 42, 49

Enter into table on Graphing Calculator

Mean (\bar{x}) = 30.1

Median (Med) = 28.5

Mode: 27

Range: $49 - 16 = 33$

Standard Deviation

σ_x : 9.32

Ex) Add 5 to each number

Mean: Add 5 = 35.1

Med: Add 5 = 33.5

Mode: Add 5 = 32

Range: ★ Doesn't Change = 33

σ_x : ★ Doesn't Change = 9.32

Ex) Multiply all values by 2

Mean: 60.2

Med: 57

Mode: 54

Range: 66

σ_x : 18.64

They all change

Ex) Create a Box + Whisker Plot

5 number Summary

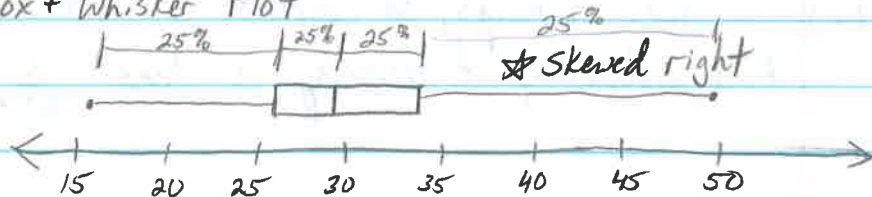
Mini: 16

Q_1 : 26

Med: 28.5

Q_3 : 33

Max: 49



Lower 25% of data is between 16 and 26

Middle 50% of data is between 26 and 33

Upper 25% of data is between 33 and 49

$IQR = Q_3 - Q_1 = 33 - 26 = 7$

Identify Outliers w/ 1.5 IQR Test

Lower Boundary: $Q_1 - 1.5(IQR) \rightarrow 26 - 1.5(7) = 15.5$ No numbers lower than this

Upper Boundary: $Q_3 + 1.5(IQR) \rightarrow 33 + 1.5(7) = 43.5$

49 is an outlier

★ 49 is bigger than this

Ex) Student scores 75, 82 and 76 on first 3 tests,
What must they score on their next test to average 80%

$$\frac{75 + 82 + 76 + x}{4} = 80$$

$$(4) \frac{233 + x}{4} = 80 (4)$$

$$\rightarrow \begin{array}{r} 233 + x = 320 \\ -233 \quad -233 \\ \hline x = 87 \end{array}$$

#10 on Review - Skewed Left

- Median is best when it is skewed
- 5 number summary

Create a Frequency Table

Range	Frequency
41-50	1
51-60	0
61-70	2
71-80	9
81-90	15
91-100	6

Ex) 13 Aces, 10 Kings, 12 Queens (Multiple Actions \rightarrow Multiplication)
Find probability of drawing 3 Aces: $\frac{13}{35} \cdot \frac{12}{34} \cdot \frac{11}{33} = \frac{26}{595} = .044$

Look over Review