Chapter 8, 9, & 10 Review Packet

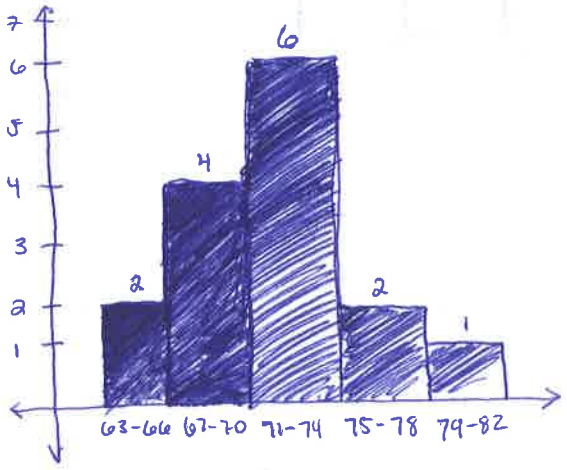
Name: _____ **Date:** _____

Directions: Answer the following questions about Frequency Tables.

1). Listed are the heights of players, in inches, on a basketball team. Create a histogram from the data.

. 79, 75, 74, 68, 63, 76, 74, 73, 69, 65, 71, 68, 74, 73, 70

Height	Frequency
63-66	2
67-70	4
71-74	6
75-78	2
79-82	1



2). Estimate the mean of the histogram from Number 1.

mean = $\left(\frac{66+63}{2}\right)(2) \Rightarrow \left(\frac{129}{2}\right)(2) \Rightarrow 64.5(2) \Rightarrow 129$

$\left(\frac{67+70}{2}\right)(4) \Rightarrow \left(\frac{137}{2}\right)(4) \Rightarrow 68.5(4) \Rightarrow 274$

$\left(\frac{71+74}{2}\right)(6) \Rightarrow \left(\frac{145}{2}\right)(6) \Rightarrow 72.5(6) \Rightarrow 435$

$\left(\frac{75+78}{2}\right)(2) \Rightarrow \left(\frac{153}{2}\right)(2) \Rightarrow 76.5(2) \Rightarrow 153$

$\left(\frac{79+82}{2}\right)(1) \Rightarrow \left(\frac{161}{2}\right)(1) \Rightarrow 80.5(1) \Rightarrow 80.5$

$$\frac{129 + 274 + 435 + 153 + 80.5}{15} = \frac{1071.5}{15} = 71.4\bar{3}$$

3). The net worth of the 10 richest people in the world for 2012 and 2013 (in billions) are:

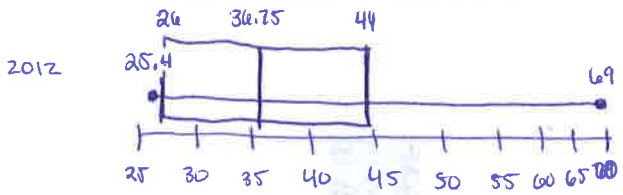
2012: ~~60~~, ~~61~~, ~~44~~, ~~41~~, ~~37.5~~, ~~36~~, ~~30~~, ~~26~~, ~~25.5~~, ~~25.4~~

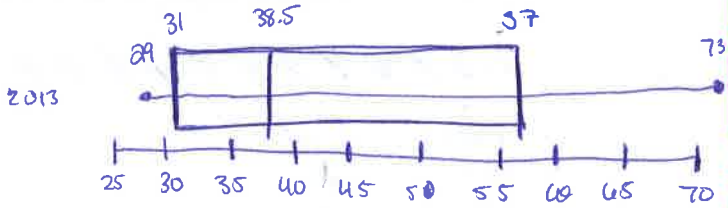
25.4, 25.5, 26, 30, 36, 37.5, 41, 44, 61, 69

2013: 73, 67, 57, 53.5, ~~43~~, ~~34~~, ~~34~~, ~~31~~, ~~30~~, ~~29~~

29, 30, 31, 34, 34, 43, 53.5, 57, 67, 73

-Create a box plot for both years.





median = $\frac{36+37.5}{2}$ = 36.75

Q_1 = 26 Q_3 = 44

median = $\frac{34+43}{2}$ = 38.5

Q_1 = 31 Q_3 = 57

4). Which year had the person with the highest net worth?

2013 → 73

5). What was the difference between the highest net worth of both years?

73 - 69 = 4

6). Which year had the cheapest net worth?

2012 → 25.4

7). What was the range of net worth's in 2012?

69 - 25.4 = 43.6

8). What was the Interquartile Range of net worth's in 2013?

57 - 31 = 26

The scores on a test given to all students in a school district are normally distributed with a mean of 70 and a standard deviation of 4.

9). Find the percent of students who scored between 66 and 74.

$74 - 70 = 4$ $\quad 70 - 66 = 4$

$\frac{4}{4} = (1) \approx 68\%$

10). Find the percent of students who scored between 58 and 82

$70 - 58 = 12$ $\quad 82 - 70 = 12$

$\frac{12}{4} = (3) \approx 99.7\%$

11). Estimate the Probability of a student scoring greater than 74 and indicate it on the graph below.

$74 - 70 = 4$

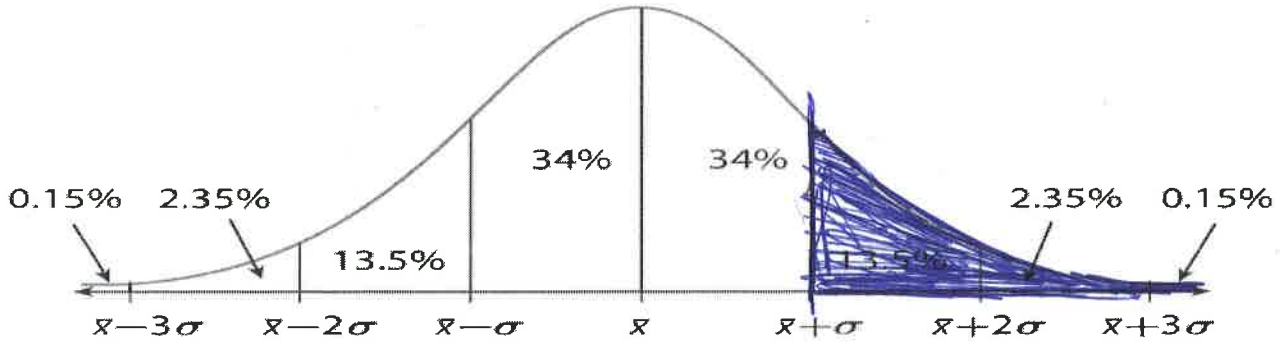
$\frac{4}{4} = 1 \approx 68\%$

$13.5 + 2.35 + .15$

$17.5 + 2.5$

16%

c data is contained in each part. my.hrw.com



masses (in grams) of pennies minted in the United

12). Estimate the Probability of a student scoring less than 62 and indicate it on the graph below.

$70 - 62 = 8$

$\frac{8}{4} = 2 \approx 95\%$

$.15\% + 2.35\% = \boxed{2.5\%}$

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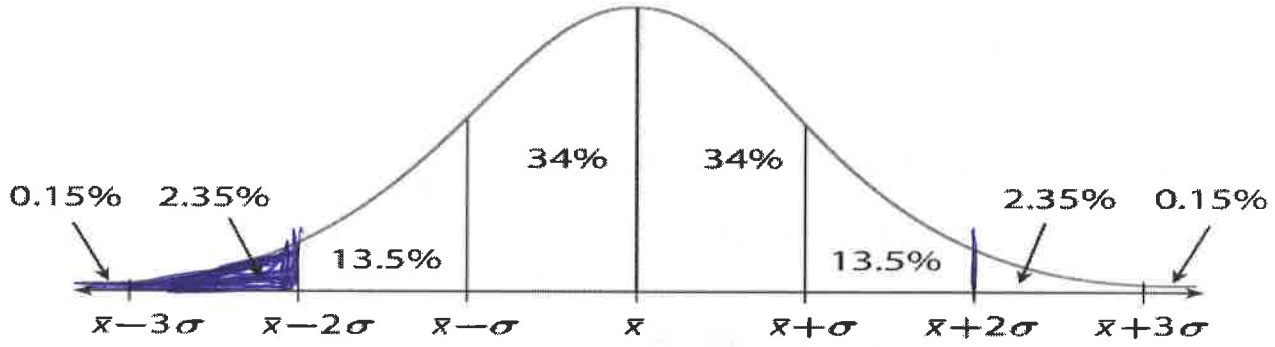
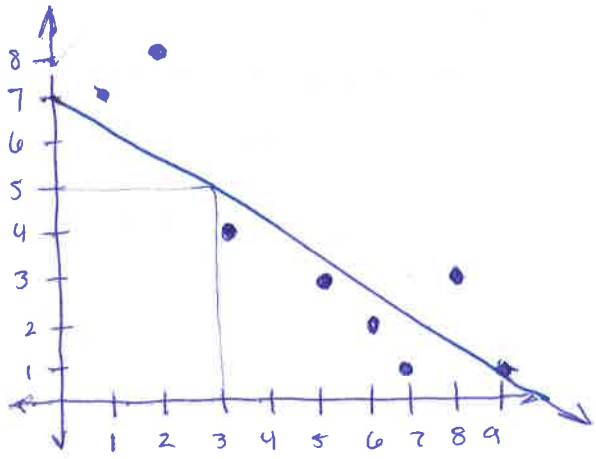


masses (in grams) of pennies minted in the United

13). Graph the following points and find a line of fit.

x	y
1	7
2	8
3	4
5	3
6	2
7	1
8	3
9	1



14). Find an equation for the line of best fit

$(0,7)$
$(3,5)$

$\frac{y_2 - y_1}{x_2 - x_1} = \frac{5-7}{3-0} = \frac{-2}{3}$

$y = m(x) + b$

$\boxed{y = \frac{-2}{3}(x) + 7}$

15). find the value when x= 15.

$y = \frac{-2}{3}(15) + 7$

$y = -10 + 7$

$\boxed{y = -3}$