SRHS - Math 1 - Assignment #8.3b ANSWERS

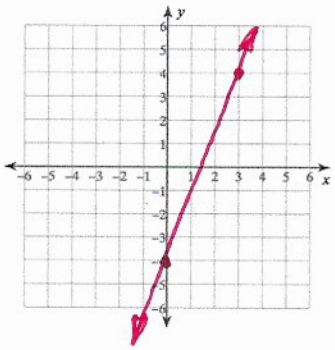
Midpoint: $\left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)$ Distance = $\sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$

Solve each equation.

1) $6(3n-3) = -90$ $n = -4$

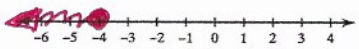
Sketch the graph of each line.

2) $y = \frac{8}{3}x - 4$



Solve each inequality and graph its solution.

3) $2 + \frac{x}{4} \leq 1$ $x \leq -4$



Write the equation of the line through the given points.

4) through: $(-3, 2)$ and $(-4, 1)$

$y = x + 5$ or $y - 2 = x(x+3)$ or $y - 1 = x(x+4)$

Solve the system of linear equations.

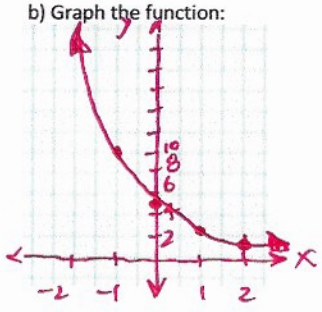
5) $-x + 3y = -2$
$x + 4y = 2$ $(2, 0)$

6. For the function: $y = 5\left(\frac{1}{2}\right)^x$

a) Complete the table:

x	y
-2	20
-1	10
0	5
1	5/2
2	5/4

b) Graph the function:



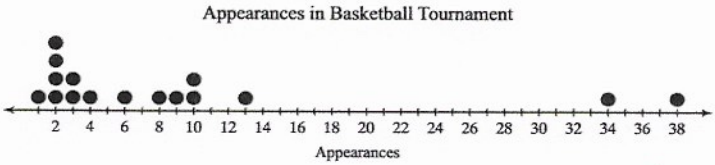
Find the mode, median, mean, and sample standard deviation for each data set.

7) Average Time to Maturity

Plant	Days	Plant	Days	Plant	Days	Plant	Days
Cowpeas	80	Arugula	35	Mustard	37	Zucchini	50
Asparagus	730	Swiss Chard	60	Kohlrabi	55	Kale	60
Lima Bean	75	Sugar Baby Watermelon	75	Cheyenne Pepper	64		

mode : 60 and 75
median : 60
mean : 120.09
s_x : 202.81

8. Describe the shape, center, spread and outliers.



- Shape: somewhat mound-shaped, skewed right, with several outliers
- Center: The median is 5

Spread: Range = 37, IQR = 8

Outliers: 34 & 38 appear to be outliers

9. Use the two-way table about baseball team preferences:

		High School Sport Played		
		Baseball	Soccer	Total
Preferred Team	A's	27	12	39
	Giants	13	26	39
	Total	40	38	78

a) What percent of students prefer the Giants? $39/78 = 50\%$

b) What percent of these athletes play Soccer $38/78 = 48.72\%$

c) What percent of those who prefer the A's, play Baseball? $27/39 = 69.23\%$

d) Of those who play Soccer, what percent prefer the Giants? $26/38 = 68.42\%$

Find the midpoint of the line segment with the given endpoints.

10) (3, 6), (5, 6) (4,6)

11) (7, 0), (–7, –8) (0,–4)

Find the distance between each pair of points.

12) (8, 3), (7, –5) $\sqrt{65}$

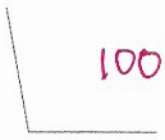
13) (0, –1), (7, 1) $\sqrt{53}$

Estimate the measure of each angle to the nearest 10 degrees.

14)

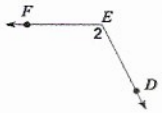

60°

15)


100°

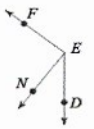
Name the angle in four ways.

16)



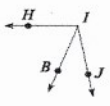
∠2
∠E
∠DEF
∠FED

17) Find $m\angle DEF$ if $m\angle DEN = 39°$ and $m\angle NEF = 87°$.



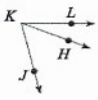
126°

18) Find $m\angle BIH$ if $m\angle JIH = 102°$ and $m\angle JIB = 36°$.



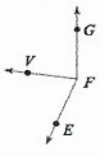
66°

19) $m\angle HKJ = 12x + 7$, $m\angle LKH = 20°$, and $m\angle LKJ = 18x + 3$. Find x.



$x = 4$

20) Find x if $m\angle VFG = 26x + 5$, $m\angle EFV = 23x + 3$, and $m\angle EFG = 155°$.



$x = 3$