Midterm Review 2016-17 (PART 2)
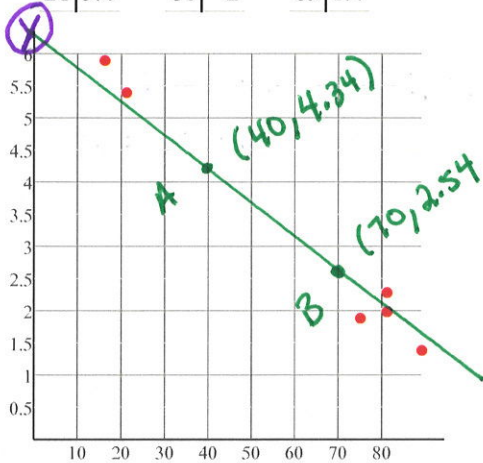
Date_____ Period____

Fit the Best Fit Line

   a) (2pts) Construct a scatter plot.
   b) (1pts) State if there is a positive, negative, or no correlation.
   c) (2pts) Use TIcalc to find the equation of the line that best fits the data (round 2 decimals)
   d) (3pts) Plot the Best Fit Line on the scatterplot: Label the y-intercept(Y);
            Label 2 points with their letters & ordered pairs - pt A:(40, _) and pt B:(70, _)

1)

X	Y		X	Y		X	Y
16	5.9		75	1.9		81	2.3
21	5.4		81	2		89	1.4

2)

X	Y		X	Y		X	Y
4	1		32	6		97	8
26	5		58	8		99	8

(40, 4.34)
A
(70, 2.54)
B

Negative correlation
$y = -0.059267x + 6.7357$
$\boxed{Y = -0.06X + 6.74}$

B (70, 7.02)
A
(40, 5.22)

Positive correlation
$y = 0.060413x + 2.8182$
$\boxed{Y = 0.06X + 2.82}$

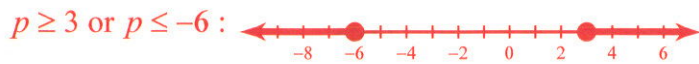## Solve each inequality and graph its solution.

← This is an "AND"

3) $|8 - 2k| < 22$

$-7 < k < 15 :$

$-22 < 8 - 2K < 22$
   -8 -8 -8
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   $-30 < -2K < 14$
     $\overline{-2}$ $\overline{-2}$ $\overline{-2}$

$\boxed{15 > K > -7}$

rewrite + graph

This is an "or"

4) $|2p + 3| \geq 9$

$p \geq 3$ or $p \leq -6$:

$$2P + 3 \leq -9 \qquad \text{OR} \qquad 2P + 3 \geq 9$$
$$\underline{\quad -3 \quad -3} \qquad\qquad\qquad \underline{\quad -3 \quad -3}$$
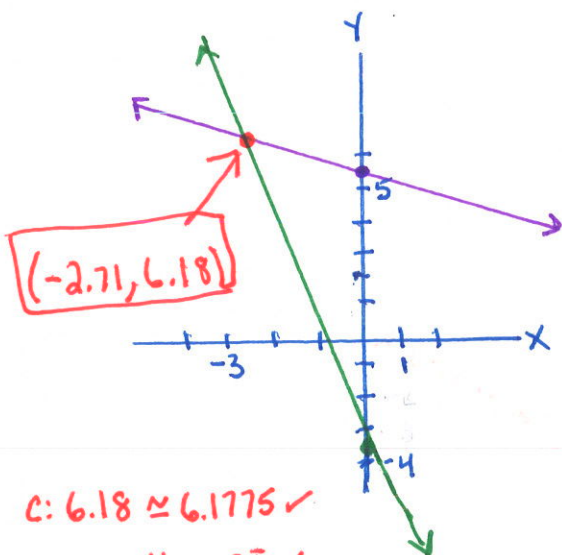$$\frac{2P \leq -12}{2} \qquad\qquad\qquad \frac{2P \geq 6}{2}$$

$$\boxed{P \leq -6 \quad \text{OR} \quad P \geq 3}$$

Solution — Do NOT forget the "OR"

Solve the system by graphing using the TICALC.
a) Sketch the graph
b) Identify the solution on the graph and label. Round the ordered pair to 2 decimals.
c) Check algebraically.

5) $y = -\dfrac{1}{4}x + \dfrac{11}{2}$ L4

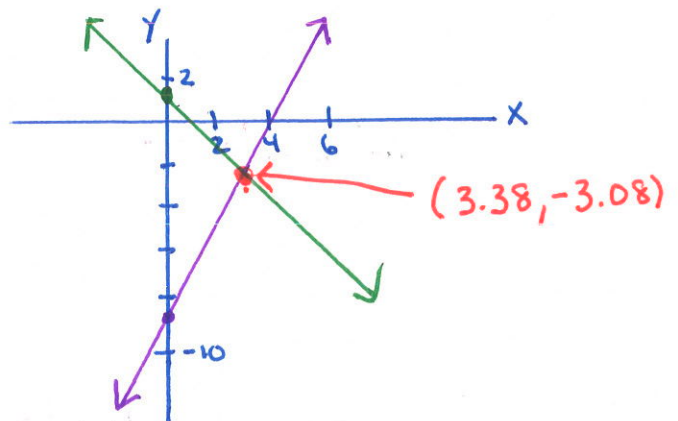 $y = -\dfrac{11}{3}x - \dfrac{15}{4}$ L2

$(-2.707, 6.176)$

$(-2.71, 6.18)$

C: $6.18 \approx 6.1775$ ✓
C: $6.18 \approx 6.186$ ✓

6) $y = 1.567x - 8.375$ L4
   $y = -1.425x + 1.74$ L2

$(3.38, -3.077)$

$(3.38, -3.08)$

C: $-3.08 \approx -3.079$
C: $-3.08 \approx -3.077$

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