

# Worksheet Chapter 3

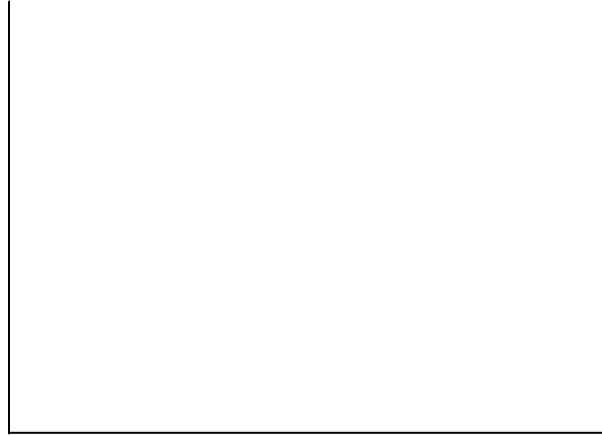
## Prob/Stats

Name \_\_\_\_\_

1.

a. Draw a Scatter Plot of the following data and make sure to label axis.

<i>x</i>	2.5	3.0	3.5	4.5	5.5	6.0
<i>y</i>	8	11	9	13	19	20



b. Complete the table and calculate the line of best fit:

<i>x</i>	<i>y</i>	$x^2$	$y^2$	<i>xy</i>
2.5	8			
3.0	11			
3.5	9			
4.5	13			
5.5	19			
6.0	20			
$\sum x =$	$\sum y =$	$\sum x^2 =$	$\sum y^2 =$	$\sum xy =$

SSx = \_\_\_\_\_      SSxy = \_\_\_\_\_      b = \_\_\_\_\_

$\bar{x}$  = \_\_\_\_\_       $\bar{y}$  = \_\_\_\_\_      a = \_\_\_\_\_

Equation of the line: \_\_\_\_\_

2.

a. Draw a Scatter Plot of the following data: (later graph the equation of the least squares line)

$x$	0	10	20	30	40
$y$	2	3	10	15	17

b. Complete the table and calculate the line of best fit:

$x$	$y$	$x^2$	$y^2$	$xy$
0	2			
10	3			
20	10			
30	15			
40	17			
$\Sigma x =$	$\Sigma y =$	$\Sigma x^2 =$	$\Sigma y^2 =$	$\Sigma xy =$

$SSx =$  \_\_\_\_\_

$SSxy =$  \_\_\_\_\_

$SSy =$  \_\_\_\_\_

$b =$  \_\_\_\_\_

$x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_

$a =$  \_\_\_\_\_

Equation of the line: \_\_\_\_\_

Predict  $y$  when  $x = 7.0$ : \_\_\_\_\_

$r =$  \_\_\_\_\_

$r^2 =$  \_\_\_\_\_

Explain what  $r^2$  tells you about the data: \_\_\_\_\_

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