

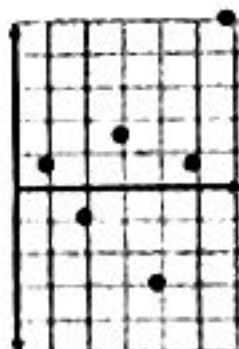
# Unit 8 Day 9 Homework

Name \_\_\_\_\_

Complete each table using the given linear regression (Round answers to one decimal place). Construct a residual plot.

1. Linear regression equation:  $y = 0.5x$

$x$	$y$	Predicted Value	Residual
5	1	2.5	0.5
10	4	5	1
15	9	7.5	1.5
20	7	10	3
25	11	12.5	0.5
30	15	10	5

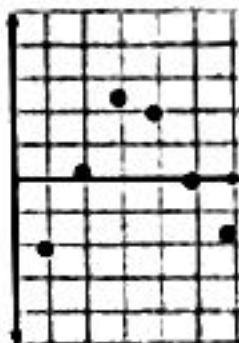


Does the residual plot suggest a linear relationship? Explain.

Yes → Dots are random

2. Linear regression equation:  $y = -0.4x + 16.3$

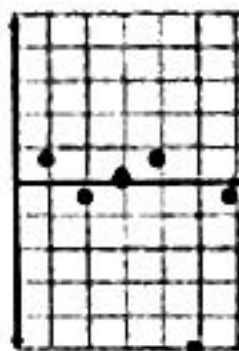
$x$	$y$	Predicted Value	Residual
2	5	15.5	10.5
4	15	14.7	0.3
6	26	13.9	12.1
8	21	13.1	8.9
10	11	12.3	-1.3
12	3	11.5	-8.5



Does the residual plot suggest a linear relationship? Explain.

3. Linear regression equation:  $y = 4.9x + 16.4$

$x$	$y$	Predicted Value	Residual
100	505	506.4	1.4
90	406	457.4	-51.4
80	415	408.4	6.6
70	360	359.4	6
60	305	310.4	-5.4
50	265	261.4	3.6



Does the residual plot suggest a linear relationship? Explain.