

Algebra I - Midterm Review (Day 3)

Do Now:

Severe flu cases are increasing in a local hospital. The number of reported cases is shown over the span of a week in the table below.

Day, x	1	2	3	4	5	6	7
Actual Flu Cases, y	13	19	24	27	30	32	34

- (a) Using your calculator, determine the equation of the trend line for this data set. Round all values to the nearest *tenth*.

$$a = 3.4 \quad (\text{R.O.C.})$$

$$b = 12.0 \quad (\text{y intercept})$$

$$y = 3.4x + 12$$

- (b) Using the regression equation that you obtained from your calculator, predict the number of flu cases on Day 10.

number of flu cases ↑
 y x

$$y = 3.4x + 12$$

$$y = 3.4(10) + 12$$

$$y = 46$$

46 flu cases

- (c) To the nearest hundredth, state the correlation coefficient. Using this number, describe the correlation between the two variables.

.98

strong and positive