

Consider the following data on height and armspan of a group of 6 students

Height (cm)	Armspan (cm)
175	172
162	165
151	148
159	159
174	173
163	158

- 1) Create a scatter plot on your GDC and draw a labeled sketch. →
- 2) From the scatter plot, describe the correlation you are visualizing.
- 3) Would it be appropriate to calculate the correlation coefficient? why?
- 4) Use your GDC to calculate the correlation coefficient.
(also called Pearson's Product-Moment Correlation Coefficient)

$$r =$$

- 5) Now calculate r by "hand" showing the complete formula and all three critical totals.

$$\bar{x} =$$

$$r =$$

$$\bar{y} =$$

- 6) Calculate the LSRL (least squares regression line also known as the line of best fit) Follow the instructions on the Graphing Calculator basics.

$$y =$$

- 7) Use the LSRL to estimate the armspan of someone who is 160 cm tall.