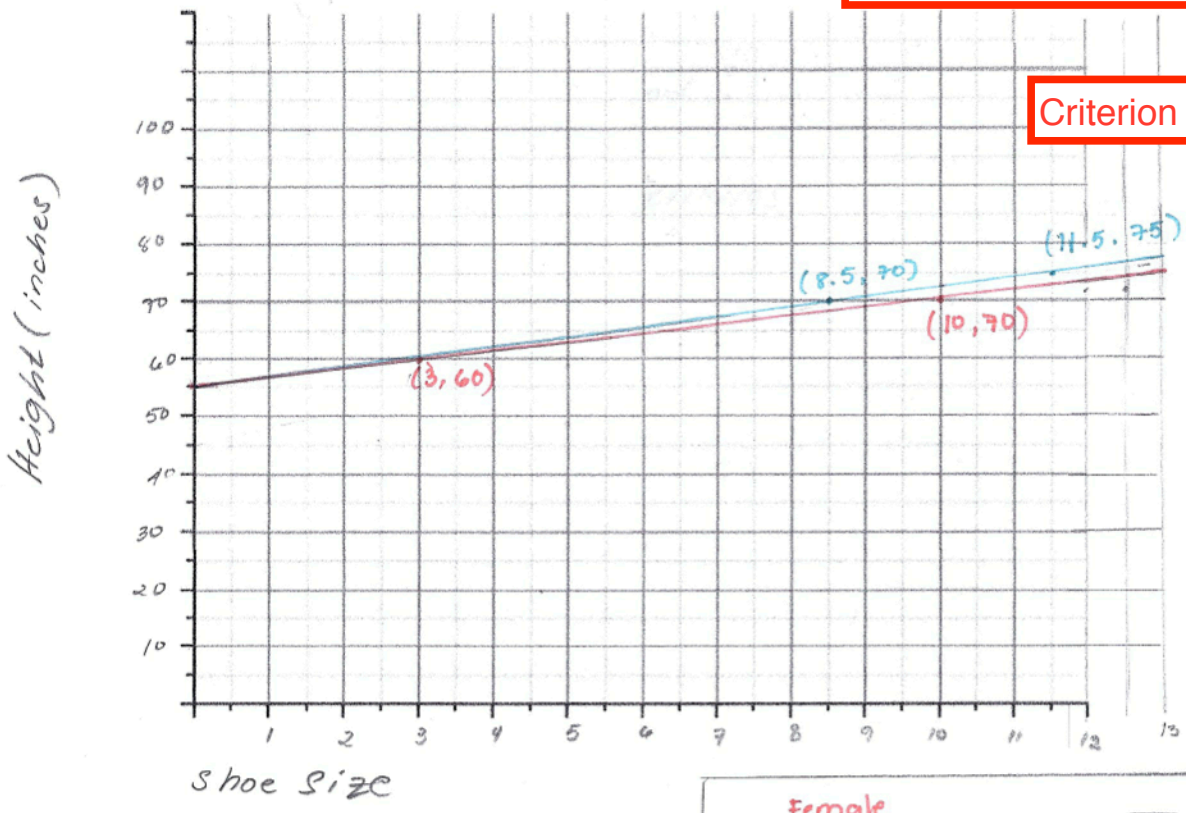
# The Footprint - Math 10C Sample 2

Legend: x - shoe size, y - height; Female, Male

Title: "Height of Males & Females Based on Shoe Sizes"




Criterion 2 - Adequate

Criterion 3 - Proficient

**Female**

- slope: $\frac{70-60}{10-3} = \boxed{\frac{10}{7}}$
- Equation: $y = \frac{10}{7}x + 55$

- Possible height of a female with size 13 foot ($x = 13$)

$y = \frac{10}{7}(13) + 55 \rightarrow$

$y = 73.57$ or 74 inches

Criterion 4 - Excellent

**Male**

- slope: $\frac{75-70}{11.5-8.5} = \boxed{\frac{5}{3}}$
- equation: $y = \frac{5}{3}x + 55$

- Possible height of a male with size 11 ($x = 11$)

$y = \frac{5}{3}(11) + 55$

$y = 73.33$ or 73 inches

Criterion 5 - Proficient

- Statement:

- The owner of the women's size 13 boot is extremely tall for a woman. while the male culprit with the size 13 boot is around the average height for men.

- Discuss:

- If there would be any error it may be due to my use of the same y-intercept for both lines. And maybe the slope for the graph of men should be

# Rubric: The Footprint

**Student**: **Sample 2**

| Criteria | Specific Requirements | Yes | Not Yet | |
|---|---|---|---|---|
| **1 - Collect data**<br><br>(Measurement 1)<br>[PS, V] | Uses measurement strategies to collect **accurate** data.<br>Not applicable. The student used provided data. | | | Note: If students are using the given data chart, this criterion will not be addressed. |

| Level / Criteria | Excellent | Proficient | Adequate | Limited * | Insufficient/ Blank * |
|---|---|---|---|---|---|
| **2 - Draw a graph from a set of ordered pairs**<br><br>(Relations and Functions 4)<br>[C, CN] | Constructs graphs that **precisely** reflects the collected data. | Constructs graphs that **credibly** reflects the collected data. | Constructs graphs that **partially** reflects the collected data.<br>The graph is well labeled, but very few of the data points appear to be graphed. | Constructs graphs that **inaccurately** reflects the collected data. | No score is awarded because there is insufficient evidence of student performance based on the requirements of the assessment task. |
| **3 - Determine equations of linear relations**<br><br>(Relations and Functions 5 and 7)<br>[PS, R] | Uses graphed data to determine **correct** equations of the lines. | Uses graphed data to determine **substantially correct** equations of the lines.<br>The student appears to have estimated rather than calculated the y-intercepts. | Uses graphed data to determine **partially correct** equations of the lines. | **Not yet able** to use graphed data to determine the equations of the lines. | |
| **4 - Solve problem**<br><br>(Measurement 1, Relations and Functions 5 and 7)<br>[CN, PS, R, V] | Uses the equations to make a **perceptive** prediction of the suspect's height.<br>The equations are used correctly to develop a perceptive prediction. | Uses the equations to make a **reasonable** prediction of the suspect's height. | Uses the equations to make a **simplistic** prediction of the suspect's height. | Prediction of suspect's height is **unsupported** by equations. | |

| | | | | | |
|---|---|---|---|---|---|
| **5 – Communicate findings**<br><br>[C, CN] | Prepares an **insightful** report, communicating mathematical strategies, sources of error, and assumptions. | Prepares a **credible** report, communicating mathematical strategies, sources of error, and assumptions. The student has made a credible attempt at communicating sources of error. Note that the communication throughout the work is examined, including mathematical communication. | Prepares a **rudimentary** report, communicating mathematical strategies, sources of error, and assumptions. | The report is **unfocused, irrelevant or confusing**. | |

* When work is judged to be limited or insufficient, the teacher makes decisions about appropriate intervention to help the student improve.