

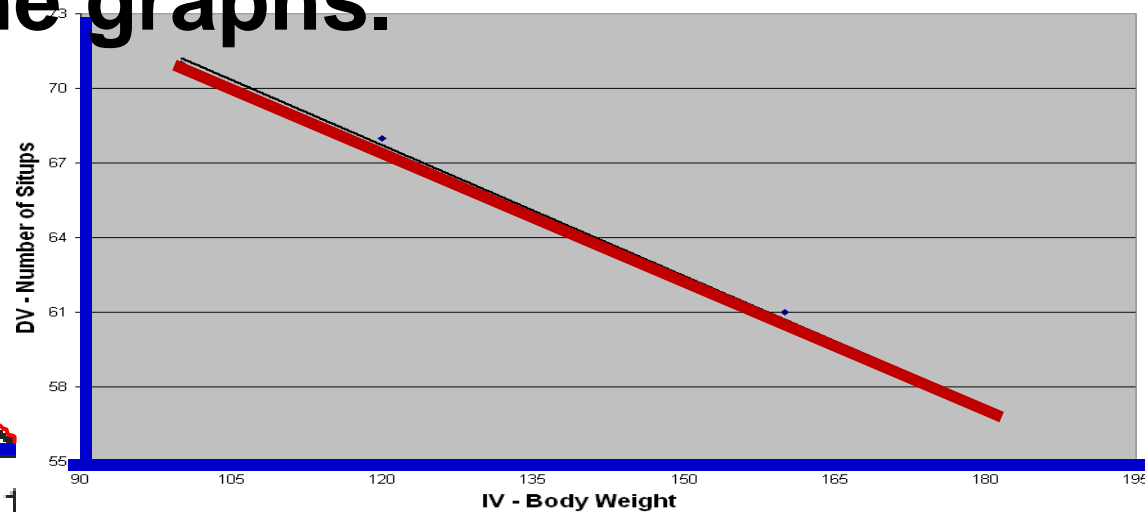
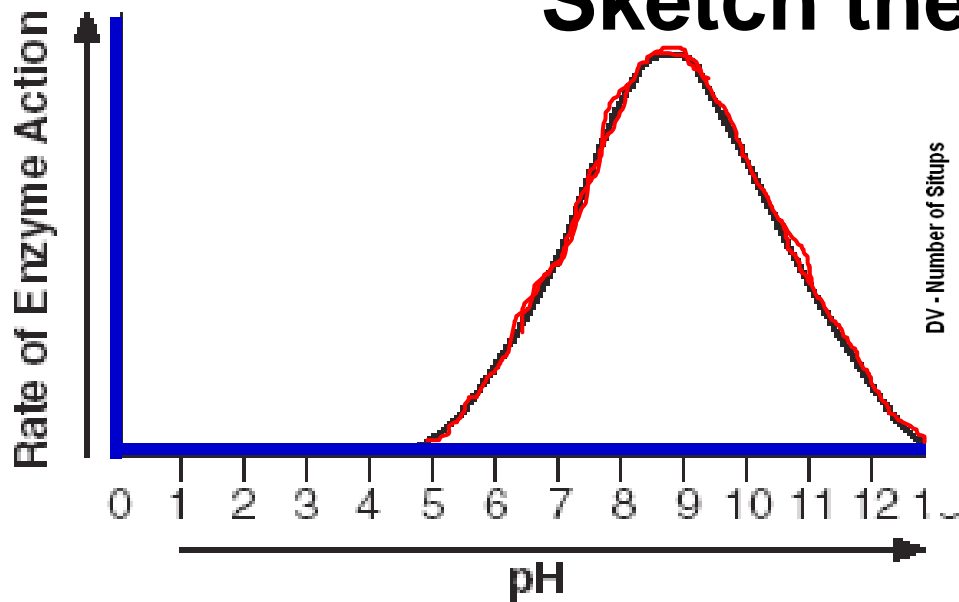
Bell Work

February 3– 6, 2014

ACT Prep, Graphs & Data Tables

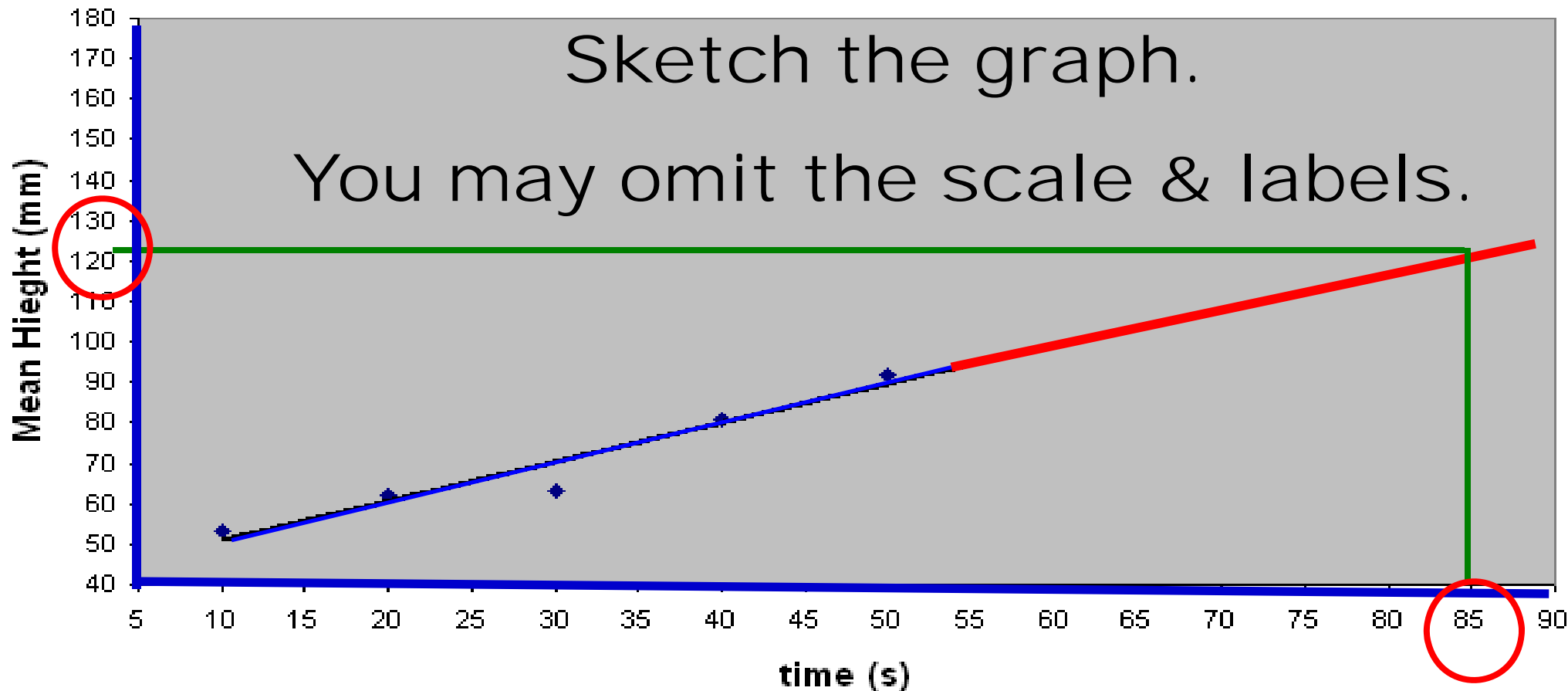
Bell Work, Monday, Feb 3, 2014

Sketch the graphs.



1. Why do scientist use graphs to display data:
 - A. Patterns and trends are revealed.
 - B. The relationship between variables can be visualized (ex: when the IV is increasing, the DV is decreasing.)
 - C. Outcomes can be predicted by extending trend lines.

Bell Work, Monday, Feb 3, 2014



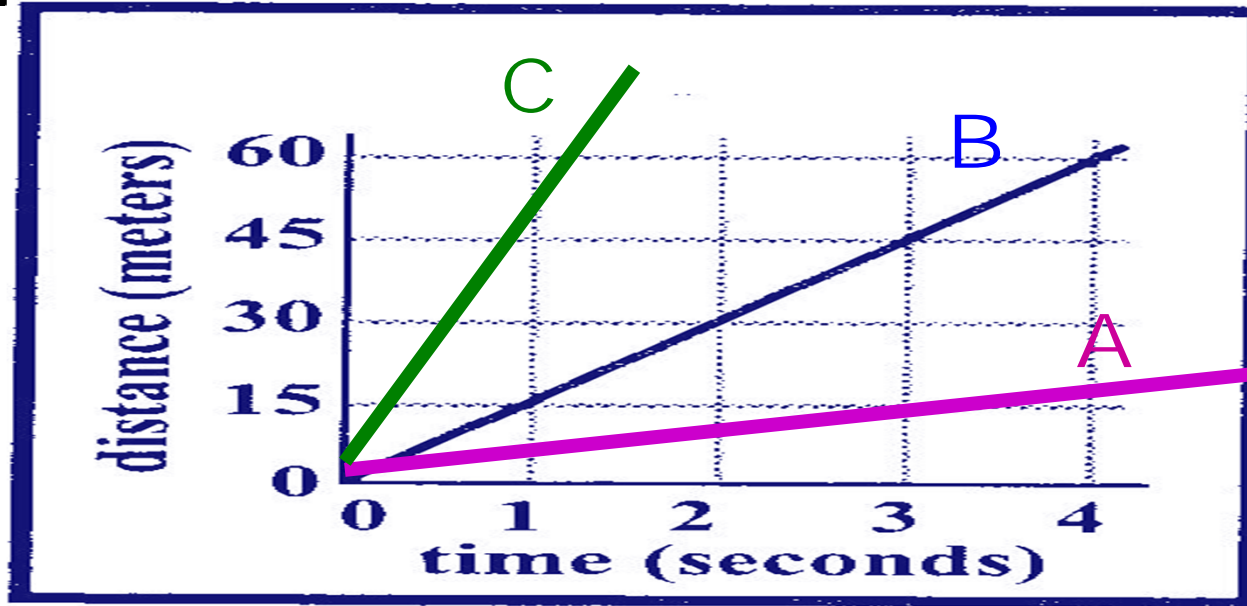
2. Predict the mean height (y axis) when the time (x axis) is 85 seconds

Extend the trend line. (This called extrapolate.)

Approximately 125 mm

Bell Work, Tuesday, Feb 4, 2014

Sketch the graph



The greater the slope, the greater the speed.

1. What does the slope of the lines for this graph of tell you?

Slope = speed or rate of change

2. Label the speed of the lines:

Slowest: **A**

Faster: **B**

Fastest: **C**

$$\text{Slope} = \frac{\text{rise}}{\text{run}} = \frac{y}{x}$$

$$y = \text{distance} \quad x = \text{time}$$

$$\frac{y}{x} = \frac{\text{distance}}{\text{time}} = \text{speed}$$

Bell Work, Tuesday 2/4/14

Copy the data table

3) Label the IV & DV in the space provided.

4) Label the x & y coordinates in the space provided.

The Effect of Altitude on Pressure

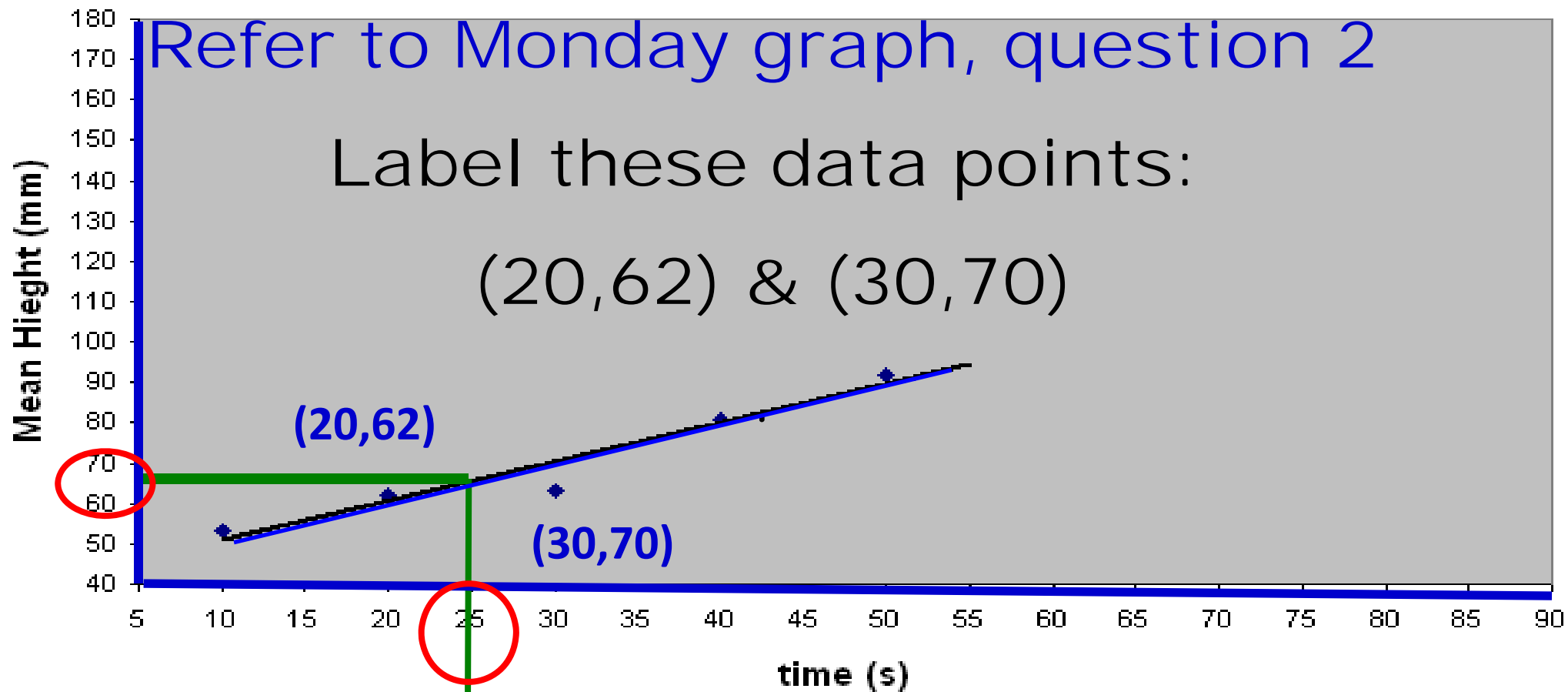
IV	DV
x	y
Altitude, (1000 feet)	Pressure (psi)
0	15
5	13
10	10
15	9
20	6

Roll Work Wednesday Feb 5

Refer to Monday graph, question 2

Label these data points:

$(20, 62)$ & $(30, 70)$



1. Predict the mean height (y axis) when the time (x axis) is 25 seconds

Draw a vertical line from 25 seconds to the trend line, and a line from the trend line to the y axis (This called interpolate.)
Approximately 68 mm.

Bell Work, Wednesday Feb 5

2. What is meant by a positive slope?

As x increases, y increases (or as x decreases y decreases).

3. What is meant by a negative slope?

As x increases, y decreases(or as x decreases y increases).

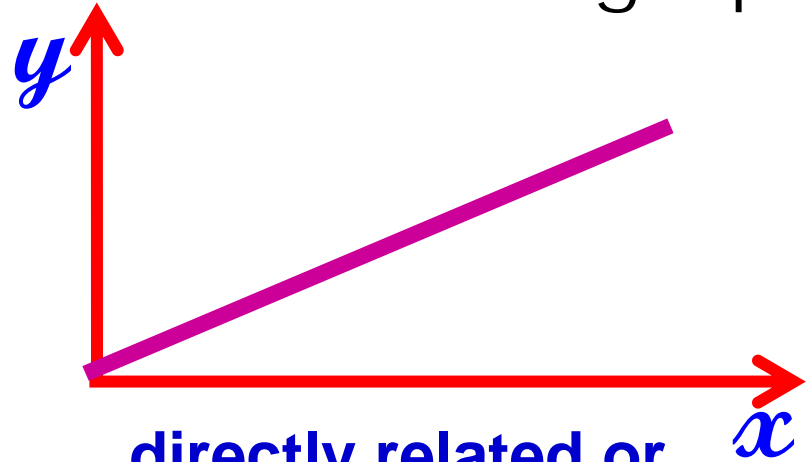
4. What is meant by “directly related.”

A straight line with a positive slope.

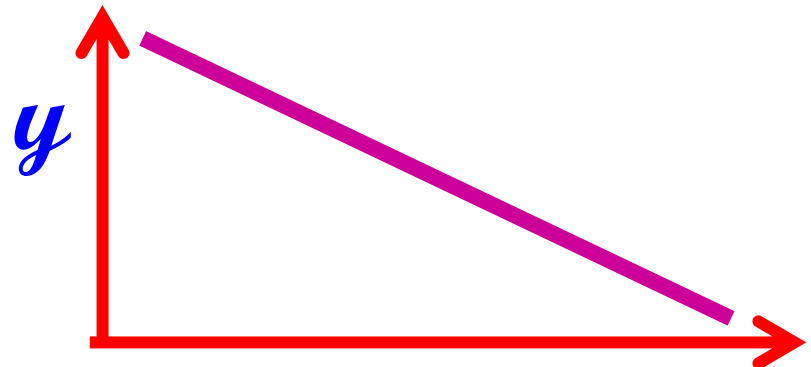
5. What is meant by indirectly related?

A straight line with a negative slope.

Draw the graphs



**directly related or
direct relationship**



**indirectly related or
indirect relationship**

Bell Work Thursday Feb 6 (1 question)

1. Name and describe the three types of ACT Science Questions/passages

- **Data Representation –**

Passages will be in the form of brief descriptions with data represented in graphs, tables, and other schematic forms.

- **Research Summaries (Designs) –**

Passages involve descriptions of one or more related experiments or give you a summary of results.

- **Conflicting Points of View –**

- Passages are expressions of agreement and disagreement in two different descriptions of experiments that deal with a scientific topic.