

Warm up :

$$\frac{45 + 75 + 50}{3} = 56.7$$

$$75 - 45 = 30 \quad \frac{30}{2} = 15$$

$$56.7 \pm 20$$

$$60 \pm 20$$

# Paragraph lab

Width = 33.5cm, Height =

Question: How does the width of a paragraph affect the height of a paragraph

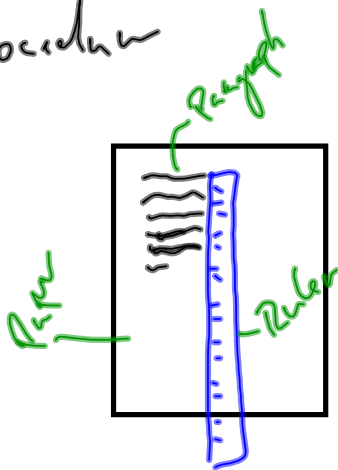
As width increases, height will



IV Width

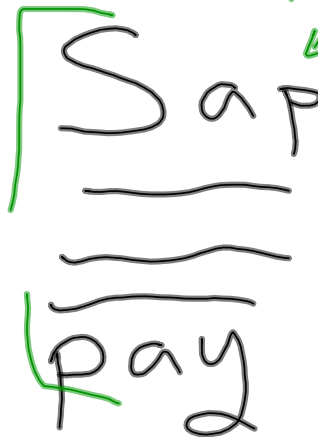
DV Height

Procedure



Controll: Length of words  
 # of words  
 Paragraph  
 Size of words  
 Font

Measure like this



measure to the  
 top of the  
 capitals and  
 the bottom of  
 the tails

Relationship: Inverse

$$H = \frac{74.2 \text{ (cm}^2\text{)}}{W}$$

2 different A values:  $\sim 75 \text{ cm}^2$   $\sim 36 \text{ cm}^2$  Font

$$\text{Width (cm) Height (cm)} = \frac{A}{\text{Width (cm)}} \cdot \text{Width (cm)}$$

$$\text{Width (cm)} \cdot \text{Height (cm)} = A$$

$$\text{cm} \cdot \text{cm} = \text{cm}^2$$

The slope of  
My inverse line  
is the area of my  
paragraph



$$h \cdot W = \text{Area}$$

$$h = \frac{\text{Area}}{W}$$

Prediction:

width = 33.5cm

$$H = \frac{73.09}{W}$$

$$H = \frac{35.67}{W}$$

$$H = \frac{73.09 \text{ cm}^2}{33.5 \text{ cm}}$$

$$H = \frac{35.67 \text{ cm}^2}{33.5 \text{ cm}}$$

$$H = 2.181 \text{ cm}$$

$$H = 1.064 \text{ cm}$$

$$\frac{\text{cm}^2}{\text{cm}} = \frac{\text{cm} \cdot \cancel{\text{cm}}}{\cancel{\text{cm}}} = \text{cm}$$

## Conclusion:

conclusive statement: Inverse

Supporting Data: Maximum and minimum data

State your equation

What are x and y / what are H and W

Analyze the data: What does the slope represent

the slope, 36.1 cm represents the area of the paragraph

Scientific Explanation: Prediction

Confidence: 1. how well your line fit your data

2. how close 33.5 cm is from your data set

3. was the area of your paragraph similar to your slope?

the area of my paragraph is 37.41 cm<sup>2</sup> and that is close to my A value

## Conclusion

Conclusive Statement: state the relationship - Inverse  
supporting data: Maximum and minimum values

State your equation:

What is x and y? / what are H and W?

Analyze Data: What does your slope represent?

Scientific Explanation: Prediction

- Confidence
1. how well does your line fit your data.
  2. how far your prediction is from your data
  3. does your A value match the area of your paragraph?

Conclusion:

Conclusive statement: Inverse

Supporting Data: Maximum and minimum values

state your equation

what are  $x$  and  $y$ ? / what are  $h$  and  $w$ ?

Analyze Data: What does the slope represent?

Scientific Explanation: Prediction

\ Warm up :

$$\frac{45 + 75 + 50}{3} = 56.66\bar{6}$$

$$75 - 45 = \frac{30}{2} = 15 \rightarrow 20$$

$$56.6 \pm 20$$

$$60 \pm 20$$