Statue of Liberty Name/Period _____

Guiding Question: Given that human bodies are predictably proportional, find out the measurements of the Statue of Liberty if her height (feet to top of head) is 111.1 feet long.

http://www.nps.gov/stli/learn/historyculture/statue-statistics.htm

a) how big is her nose?

b) how long is her arm?

c) how big is her waist?

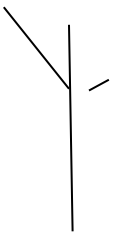
d) how long are her legs?

e) how big is the book?

1) Write your plan for solving this problem.

2) After solving the problem, make a poster of the Statue of Liberty that is to scale for the size of your paper. You will need to do a new set of proportions. Try drawing "guiding lines" that give you the correct proportions first. Next, sketch in the features and clothing for our lady!

EX: arm head to toe measurement



Arm with book

Statue of Liberty Project – Setting up your proportions

You are going to compare your height to Lady Liberty's height. Then use your "body part" to find the approximate size of her body part. (Hint: use cross products)

Arm $\frac{Body\ part}{My\ height} = \frac{Body\ part}{Her\ height}$

Leg $\frac{Body\ part}{My\ height} = \frac{Body\ part}{Her\ height}$

Waist $\frac{Body\ part}{My\ height} = \frac{Body\ part}{Her\ height}$

Nose $\frac{Body\ part}{My\ height} = \frac{Body\ part}{Her\ height}$

Book $\frac{Body\ part}{My\ height} = \frac{Body\ part}{Her\ height}$

Now use the Statue of Liberty information to create your actual poster. Make her poster height 35 cm. (You will not need to convert from inches to centimeters since each fraction will stay in the same units.)

Arm $\frac{Body\ part}{Her\ height} = \frac{Body\ part}{Poster\ height}$

Leg $\frac{Body\ part}{Her\ height} = \frac{Body\ part}{Poster\ height}$

Waist $\frac{Body\ part}{Her\ height} = \frac{Body\ part}{Poster\ height}$

Nose $\frac{Body\ part}{Her\ height} = \frac{Body\ part}{Poster\ height}$

Book $\frac{Body\ part}{Her\ height} = \frac{Body\ part}{Poster\ height}$

Once you have your poster created, list 5 facts about the Statue of Liberty on your poster…