**Was Davinci Correct?: The Vitruvian Man**

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***Background***: The Vitruvian Man is a world-renowned drawing created by Leonardo da Vinci around the year 1487. It is accompanied by notes based on the work of the famed architect, Vitruvius Pollio. The drawing, which is in pen and ink on paper and measures 34.4 cm × 25.5 cm (13.5 in × 10.0 in), depicts a male figure in two superimposed positions with his arms and legs apart and simultaneously inscribed in a circle and square. The drawing and text are sometimes called the Canon of Proportions or, less often, Proportions of Man. It is stored in the Gallerie dell'Accademia in Venice, Italy, and, like most works on paper, is displayed only occasionally.

For if a man be placed flat on his back, with his hands and feet extended, and a pair of compasses centered at his navel, the fingers and toes of his two hands and feet will touch the circumference of a circle described there from. And just as the human body yields a circular outline, so too a square figure may be found from it. For if we measure the distance from the soles of the feet to the top of the head, and then apply that measure to the outstretched arms, the breadth will be found to be the same as the height, as in the case of plane surfaces which are perfectly square.

*Why from an artist?* “The other members (parts), too, have their own symmetrical proportions, and it was by employing them that the famous painters and sculptors of antiquity attained to great and endless renown.”

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**WHO IS MY PARTNER? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**WHICH PROPORTION? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Directions**: You and a partner will choose one of the following proportions from the list below (NOT WINGSPAN vs. HEIGHT) and create a hypothesis from your personal measurements if you believe the proportions to be true.

After your purpose and hypothesis is complete, take time to design and experiment with your partner to go about accurately measuring the other students in the room. It needs to be ACCURATE AND CONSISTENT from person to person.

Collect your data in an organized fashion and save so you can refer to it.

Build a graphing with all major parts, accurate scale, coordinating points, a line of best fit, and an equation of a line.

Continue the finish this assignment by taking time to look at your graph and explain what audience if seeing (about 5 sentences). Use of specific data will typically strengthen your argument, if using data correctly. Compare it to our wingspan vs. height graph built in class!

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**Vitruvius Proportions:**

These proportions are seen in Leonardo's notes in the drawings accompanying text, written in mirror writing. It was made as a study of the proportions of the (male) human body as described in:
    - a palm is the width of four fingers
    - a foot is the width of four palms (i.e., 12 inches)
    - a cubit is the width of six palms
    - a pace is four cubits
    - a man's height is four cubits (and thus 24 palms)
    - the length of a man's outspread arms (arm span) is equal to his height
    - the distance from the hairline to the bottom of the chin is one-tenth of a man's height
    - the distance from the top of the head to the bottom of the chin is one-eighth of a man's height
    - the distance from the bottom of the neck to the hairline is one-sixth of a man's height
    - the maximum width of the shoulders is a quarter of a man's height
    - the distance from the middle of the chest to the top of the head is a quarter of a man's height
    - the distance from the elbow to the tip of the hand is a quarter of a man's height
    - the distance from the elbow to the armpit is one-eighth of a man's height
    - the length of the hand is one-tenth of a man's height
    - the distance from the bottom of the chin to the nose is one-third of the length of the head
    - the distance from the hairline to the eyebrows is one-third of the length of the face
    - the length of the ear is one-third of the length of the face
    - the length of a man's foot is one-sixth of his height

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Notebook:

* Purpose – What is the purpose of doing this experiment? What can we learn from it? Where can this information be useful?
* Hypothesis – Do not use if… then. Spend time using your own measurements to agree or disagree with DaVinci’s proportions and see if you can prove him right or wrong!
* Materials & Procedures – This will be completely up to you. I am excited to see what you will come up with for measurement procedures and materials. Please include all parts to obtaining your data!
* Data – You will need to create a data table that it neat! If you would like to create it on the computer and paste it into the notebook, I am okay with that.
* Results and Analysis – Discuss specific data findings that agree or disagree with your hypothesis. GRAPHS! (Can be created on Excel)
* Conclusion – Should restate your hypothesis, data findings agrees or disagrees with hypothesis, use of specific data from your experiment to use as evidence of your argument, what did you learn through this process (can be something about the body, measuring, experimental design, etc.), errors of the experiment that may have skewed the data, future questions regarding this data or topic. Should be no less than 6-8 sentences.