

Mathematical Expression

“Elementary, my dear Watson” –Sherlock Holmes

Essential Question

What part does mathematics play in the communication of design ideas?

Reality

- Sometimes math can become overwhelming
- Engineering programs require mathematics
- Mathematics is one of the most important tools available to an Engineer to reach design solutions

Uses for Math

OA tool to express solutions

OA tool for creating solutions

Can you think of a few
practical uses?

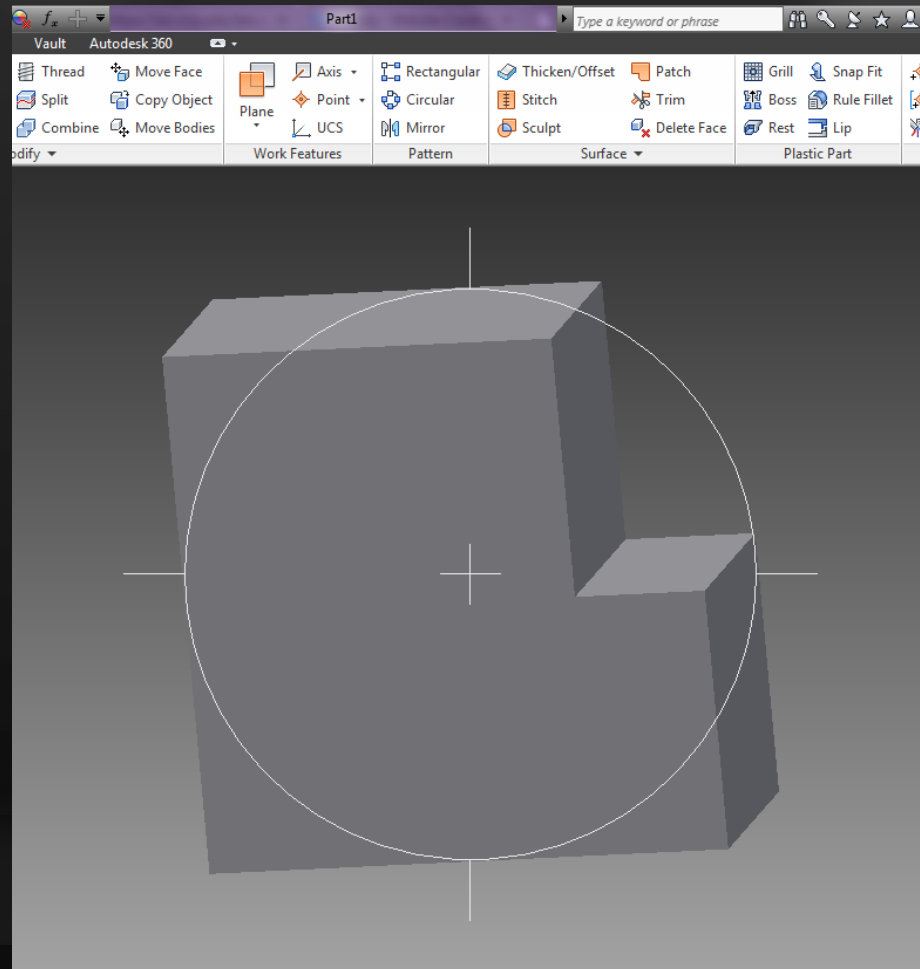
○ Dimensions

○ Success Analysis

○ Compare & Contrast

Example

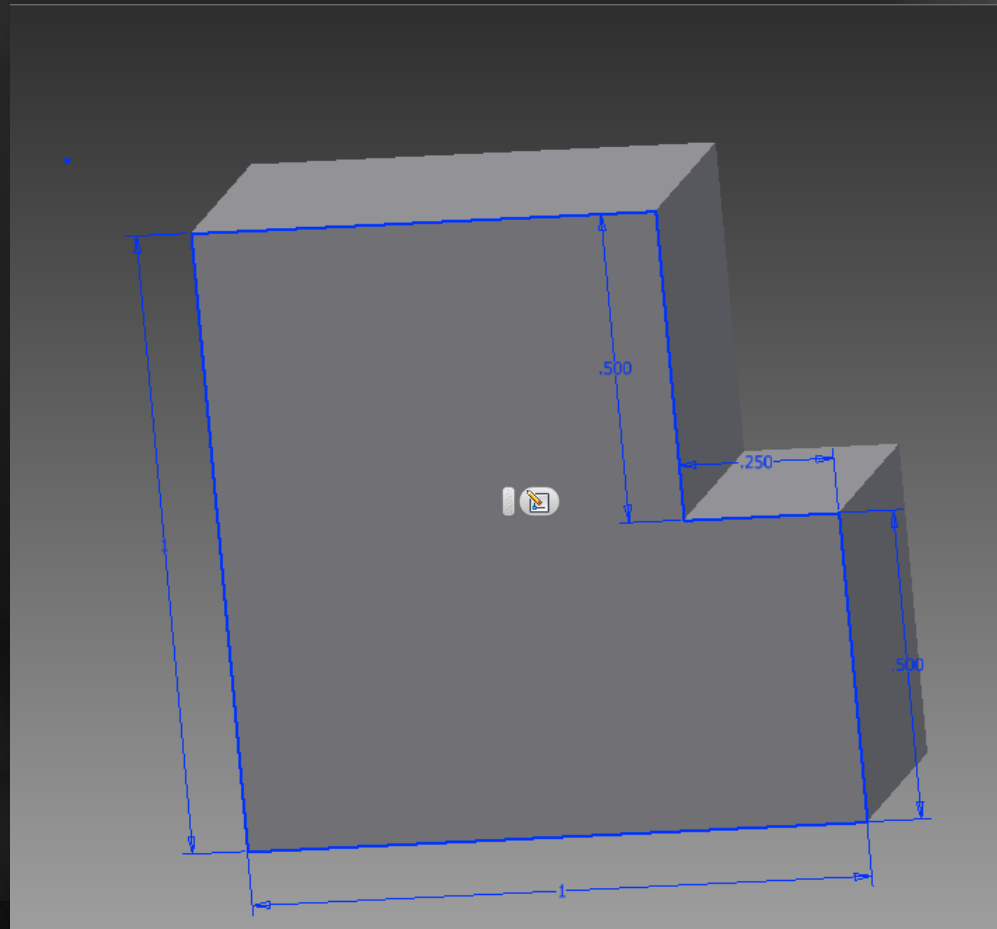
Real world example, build the step below:



What are you missing?

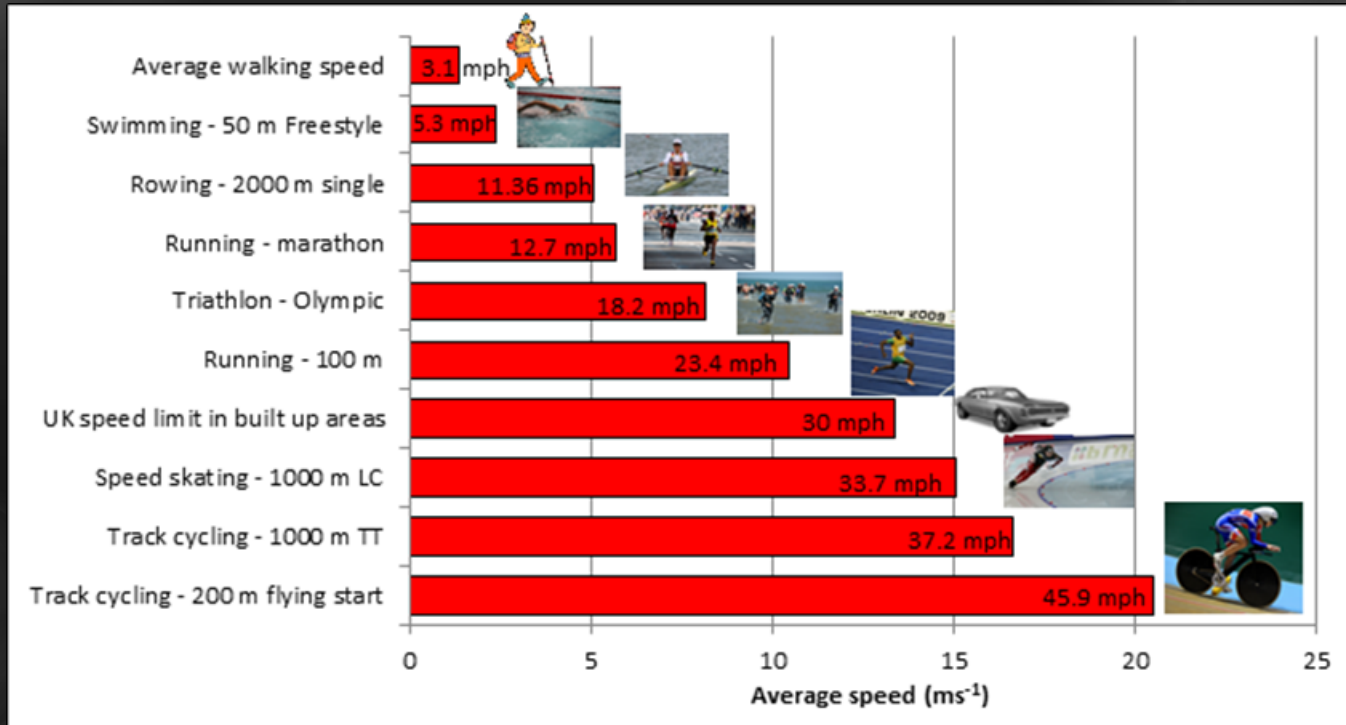
Example

Try again

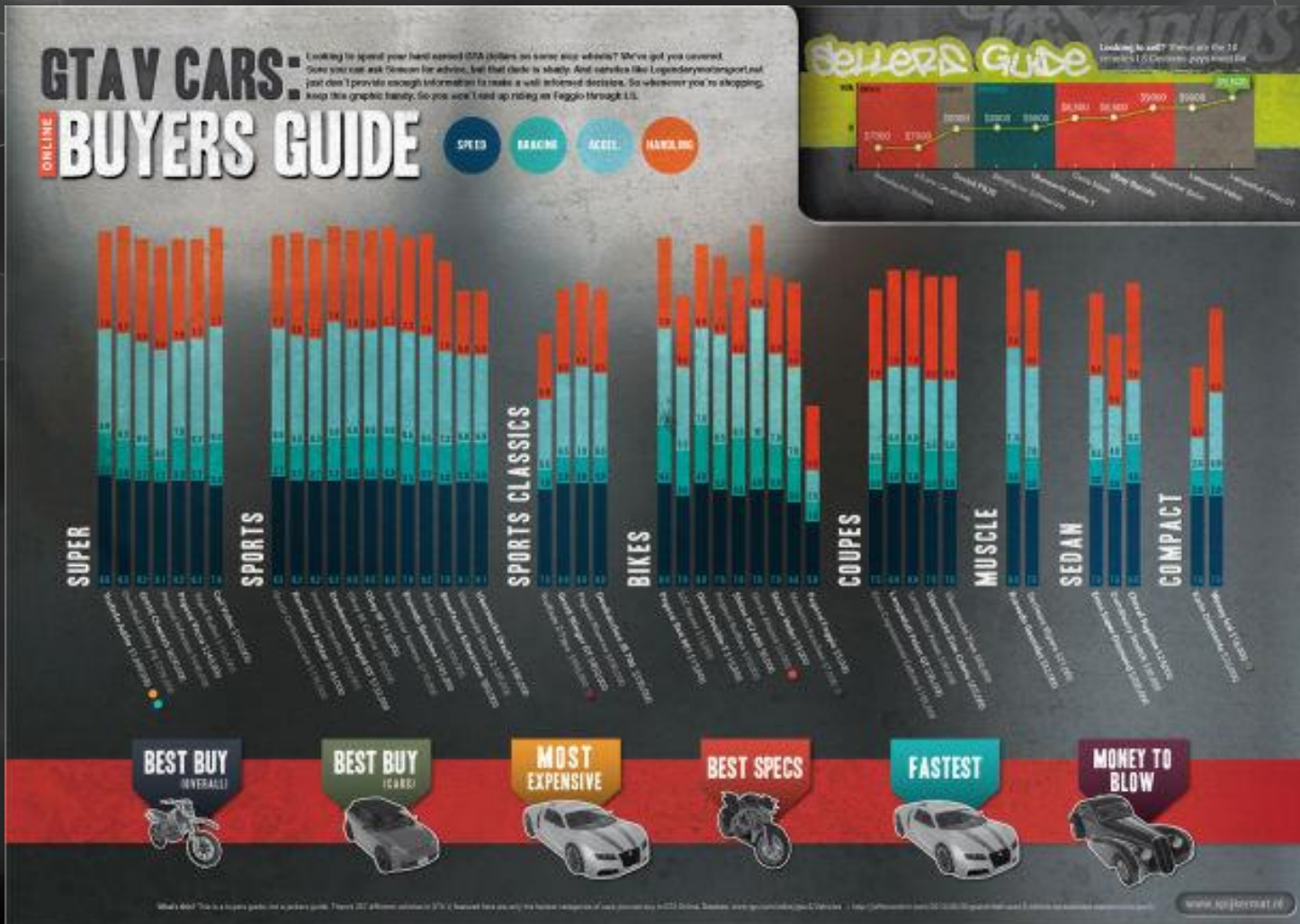


Are you able to build this model now? Why or why not?

Which mode of transportation is faster? Why?



Which car is the best in class for sports cars? Why?



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Resources

VCSU Staff. Unit#3 engineering graphics, Reading assignment. Valley City State University, Valley City, ND. Retrieved from: https://bb.vcsu.edu/bbcswebdav/pid-511404-dt-content-rid-5542239_2/courses/STEMED_660_FLL_2014/660%20Unit%203%20Reading.pdf

Graph of speed sports retrieved from: <http://engineeringport.co.uk/2012/08/01/high-speed-sports/>

Buyers Guide Graph retrieved from: <http://www.ign.com/articles/2013/11/15/gta-v-infographic-makes-comparing-vehicles-easy>