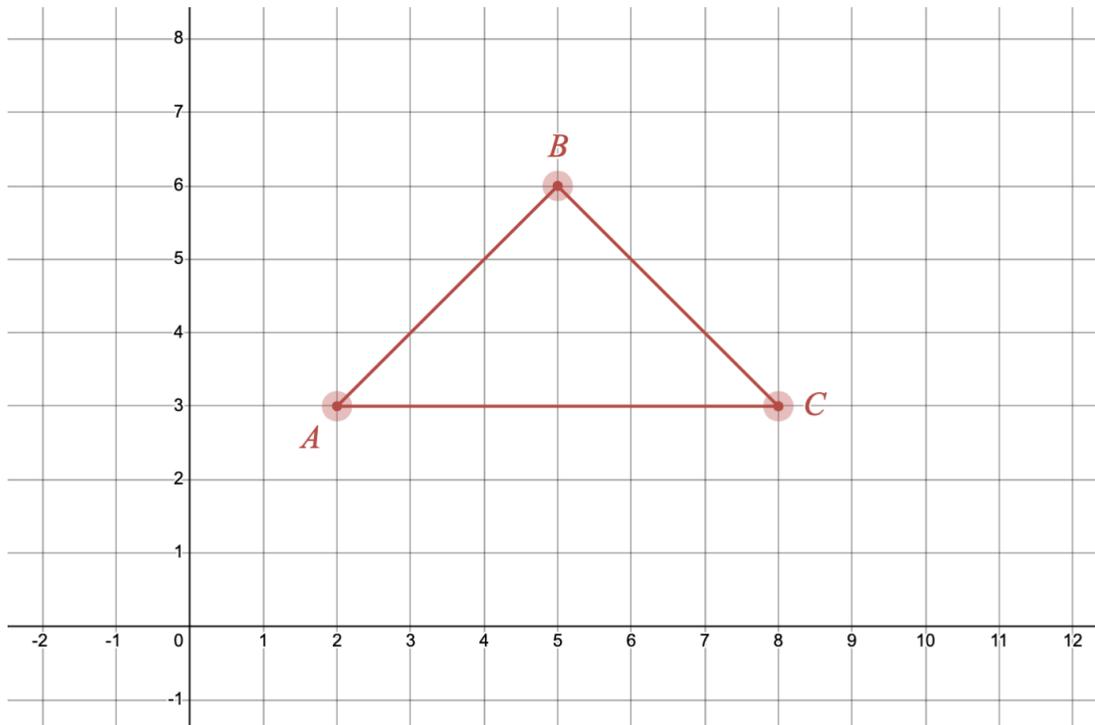


M154: Coordinate Geometry Pre-Badge Task

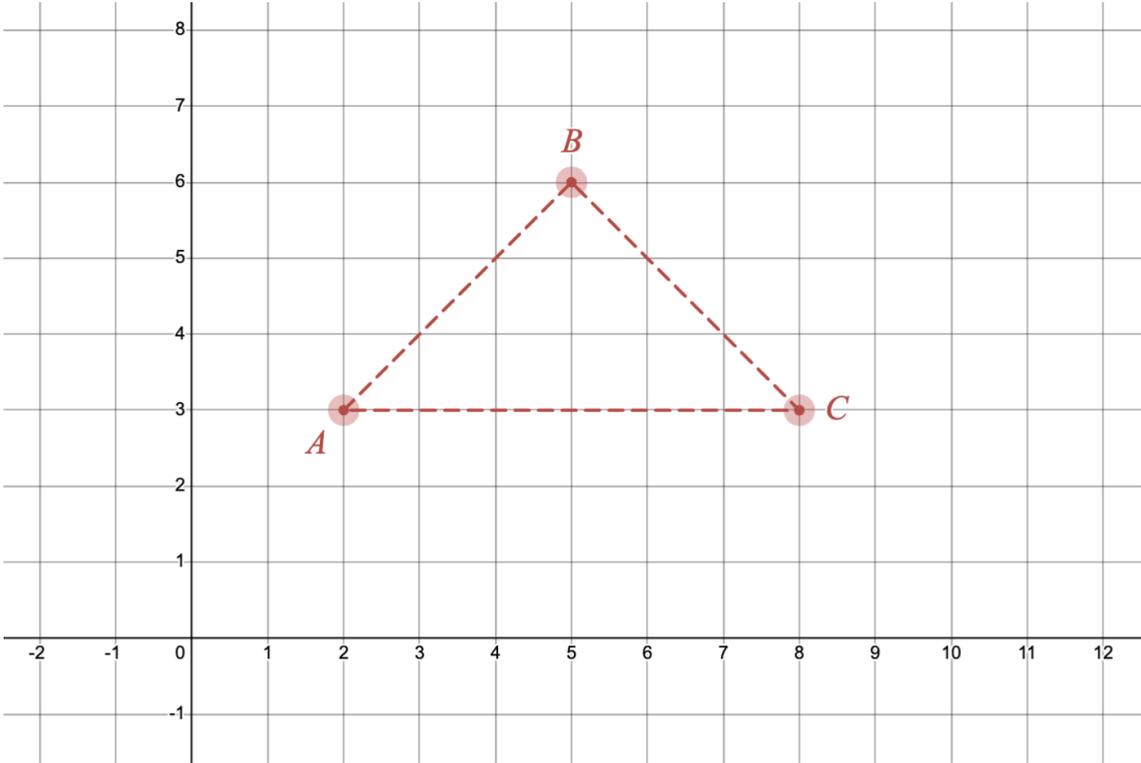
New Badge Alert!

This task will provide a preview of what we will be learning during the M154 - Coordinate Geometry. You already know so much math, so use this task to share any understanding that you have before we start our learning. You will have a chance to do the same task at the end of the badge to see how your thinking has evolved.

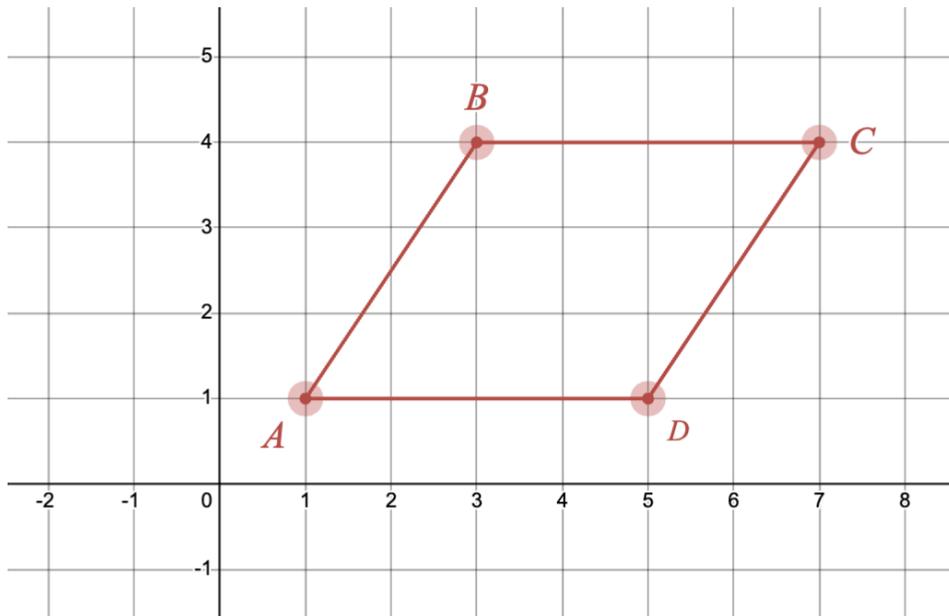
QUESTION 1 Determine the area and perimeter of Triangle ABC. Show the calculations that support your answers.



QUESTION 2 Where could you place Point P so that together with points A, B, and C the resulting figure is a parallelogram?



QUESTION 3 Amber and Nolan are discussing the figure below. Amber says that figure ABCD is a rhombus. Nolan believes it is not a rhombus. Choose whether you will take the perspective of Amber or Nolan. If you choose to be Amber, you will explain to Nolan why you are certain that the figure is a rhombus. If you choose to be Nolan, you will help Amber understand why the figure is not a rhombus. Have fun!



QUESTION 4 Figure ABCD is defined by the points A(0,0), B(3,4), C(8,4), and D(5,0). Which labels—parallelogram, rectangle, rhombus, square—apply to figure ABCD? Give a coordinate proof to support your claim.

