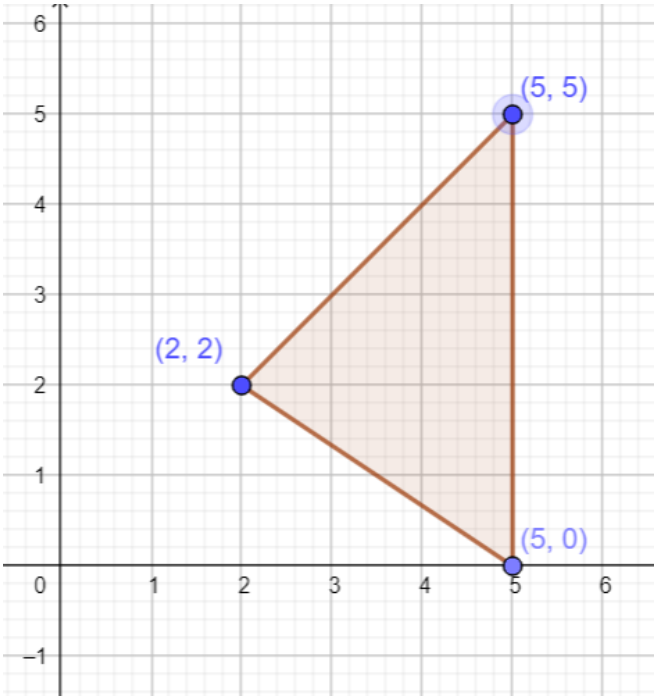
Teaching Geometry for Understanding

Activity

Discuss with your group how to find the area of a triangle.



Task

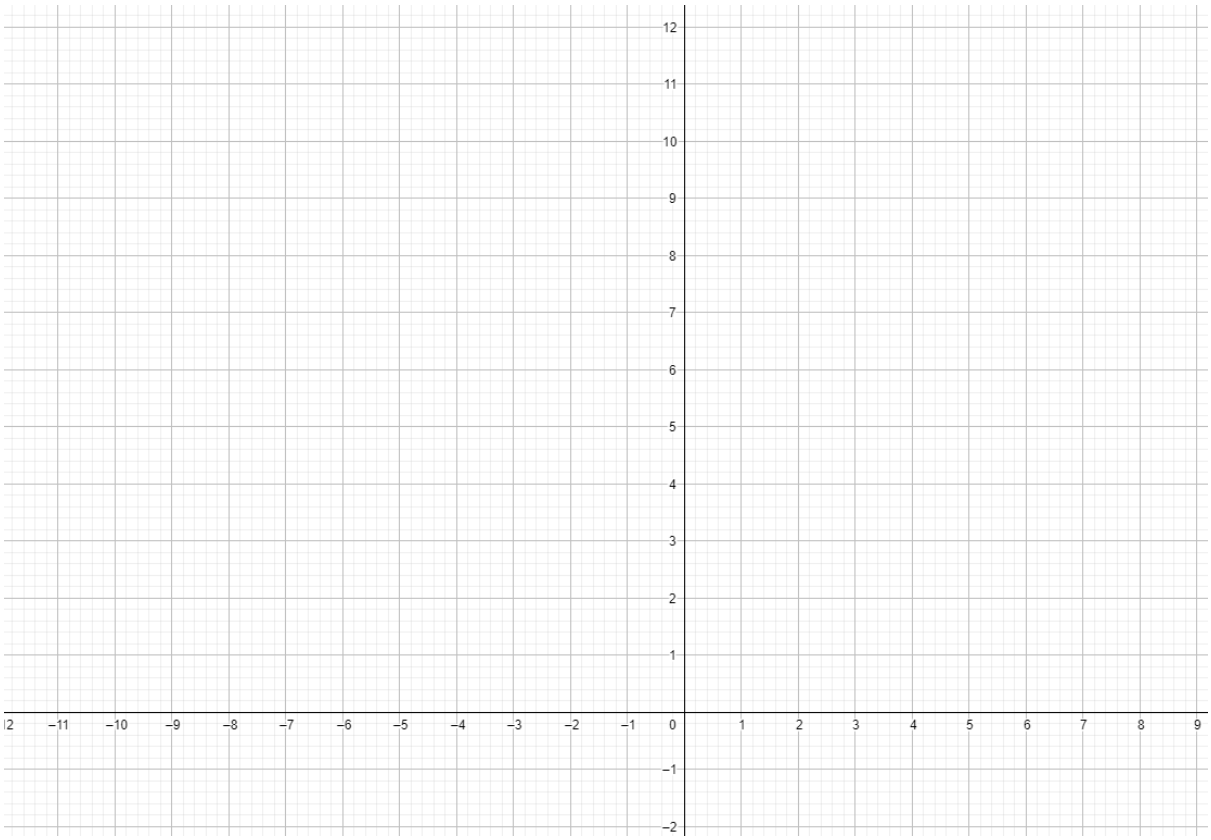
Using a Geoboard (or digital Geoboard) construct the following triangles:

1. An acute triangle with one side vertical.
2. An acute triangle with no vertical or horizontal sides.
3. A right angle triangle.
4. An obtuse triangle with no horizontal or vertical sides.

Choose an appropriate strategy to find the area of each of the triangles above. Justify your solution.

Extending the Learning

The points A(-9, 3), B(-4, 3) and C(-4, 10) are the vertices of the triangle ABC. Find the area of the triangle ABC.

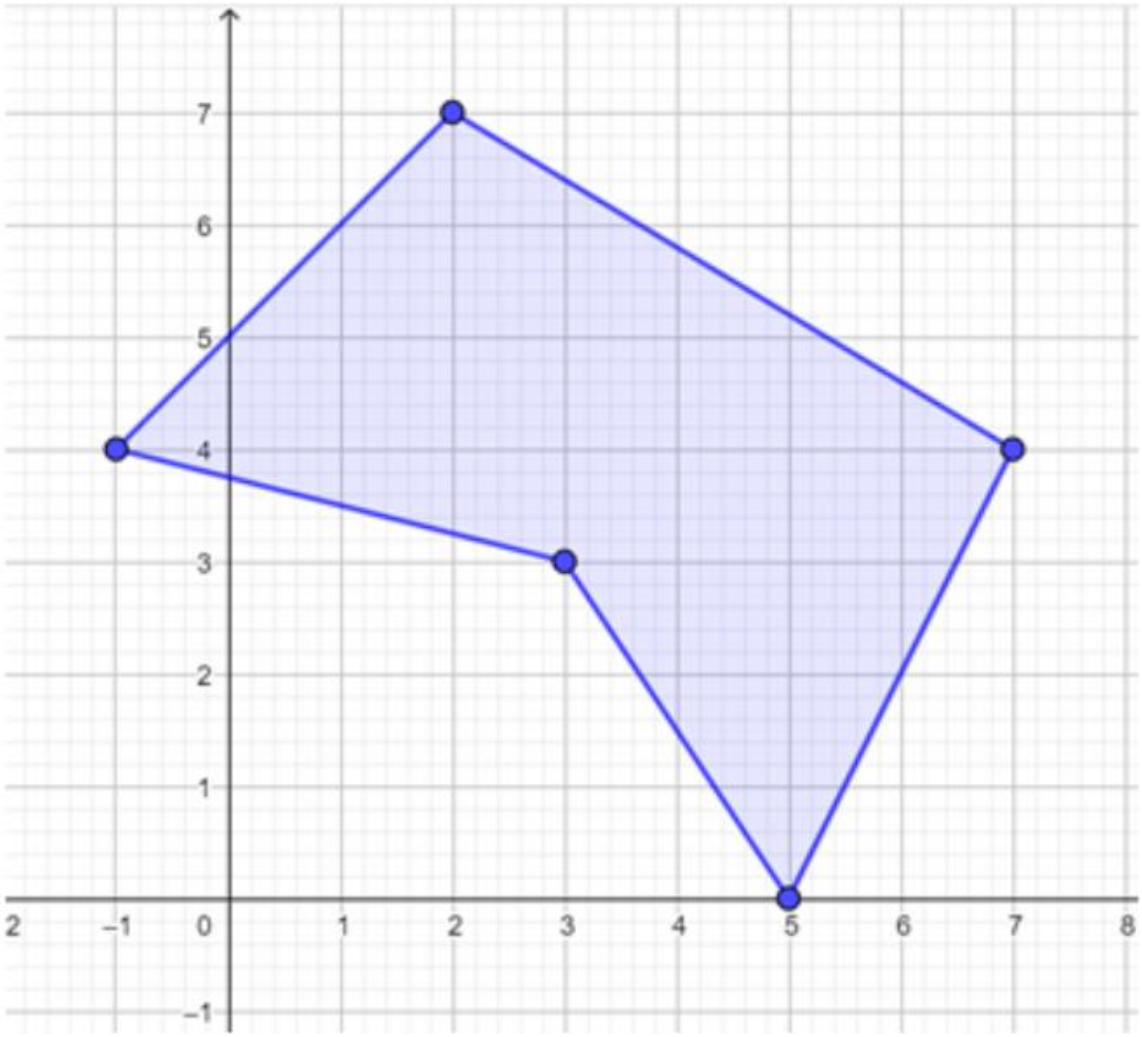


Extension

Find the area of a triangle with vertices (-3, 4) (4, 2) (6,10).

Task

Using one of the strategies identified above, find the area of the polygon shown below.

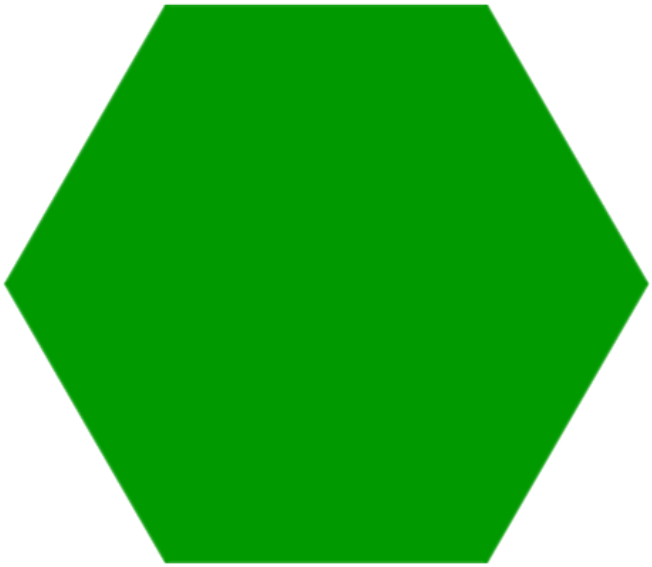


Next Steps: Investigating the Hexagon

Key learning: We can apply our strategy to find the area of the hexagon.

Connections: Equilateral Triangles, lines of symmetry.

Sample Questions:
Find the area of the hexagon.
What relationships can you identify?



Student Reflection

Write down what new learning you encountered during this activity. Write down any new terminology that you heard today. Provide a detailed description of each term listed.