

Name: \_\_\_\_\_

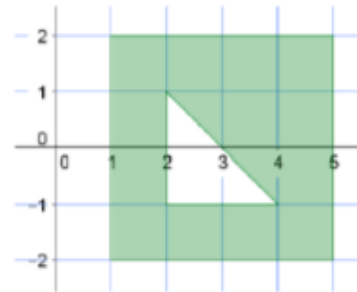
Period: \_\_\_\_\_

Date: \_\_\_\_\_

Mr. Valentino

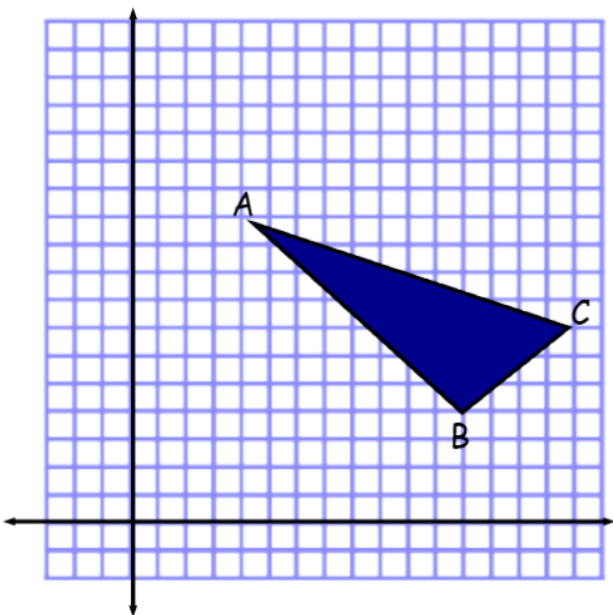
Aim: What is the shoelace theorem?

Do Now: What is the area of the green shaded region?



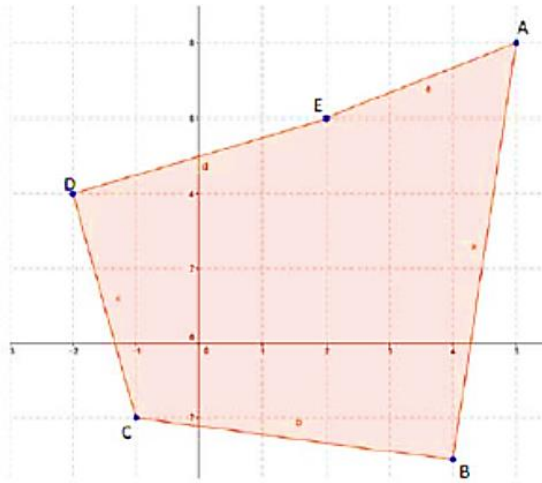
How can we find the area of the shaded region?

Shoelace Theorem

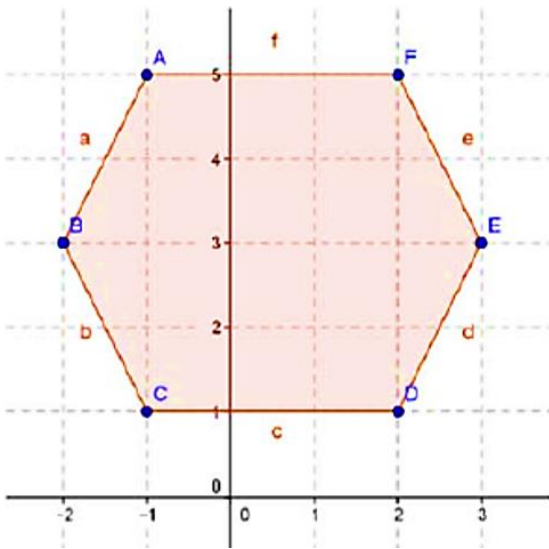


1. Consider a triangle with coordinates  $(2, 5)$ ,  $(1, 2)$ ,  $(5, 1)$ . What is the area of the triangle?

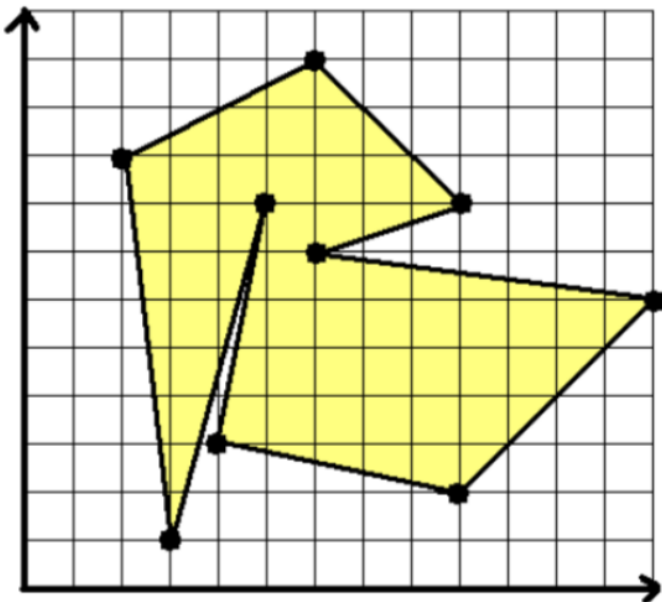
2. Find the area of the shaded region



3. Find the area of the shaded region



4. \*\*\*CHALLENGING\*\*\* Find the area of the shaded region



5. Find the area of pentagon ***ABCDE*** with vertices ***(2, 6)***, ***B(7, 2)***, ***C(3, -4)***, ***D(-3, -2)***, and ***E(-2, 4)***.

6. Find the area of quadrilateral ***ABCD*** with vertices ***(6, 5)***, ***B(2, -4)***, ***C(-5, 2)***, and ***D(-3, 6)***.