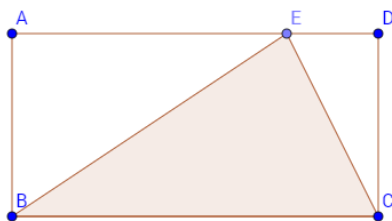# Geometry: Area of Triangles and Quadrilaterals
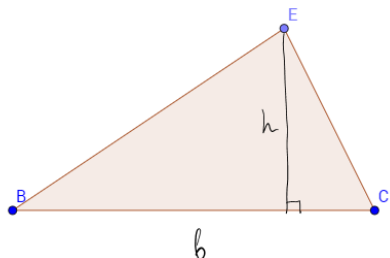
1. Find the area of rectangle ABCD. Explain why your answer is right. (Do NOT just say "because there is a formula", but actually explain why.)
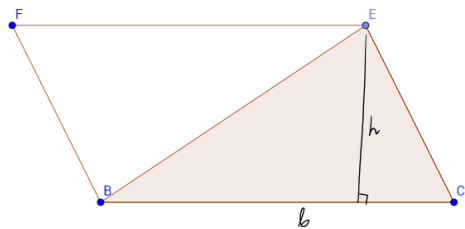
2. What fraction of the total rectangle area is shaded? Explain. Again, do not use a formula as your explanation.
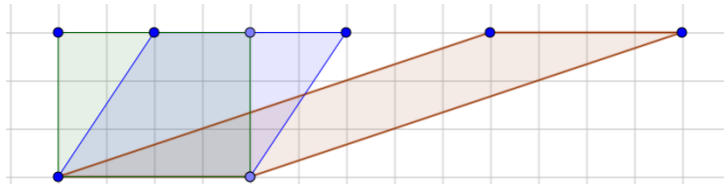
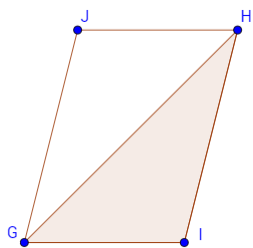3. If the base of the triangle is b and the height is h, what is the area of the triangle? Explain.

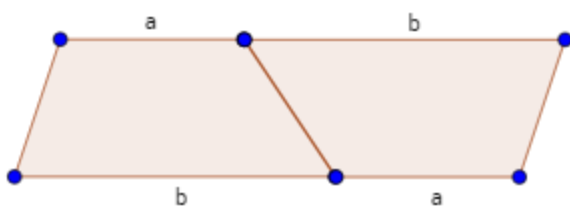4.  Find the area of a parallelogram with base b and height h. Explain.

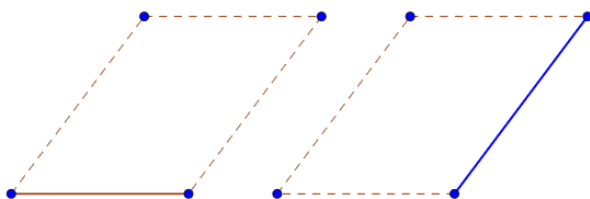5. Which of the three quadrilaterals has the largest area: (explain why)

1

6. Explain why the triangle formula also works for an obtuse triangle.

7. Find the area of a trapezoid with bases a and b and height h. Explain without using the trapezoid formula..

8. In each parallelogram, the solid side is chosen as the base. Draw the corresponding height.

9. In your own words, explain what is a height in a parallelogram.

10. Find the area of the following figures: