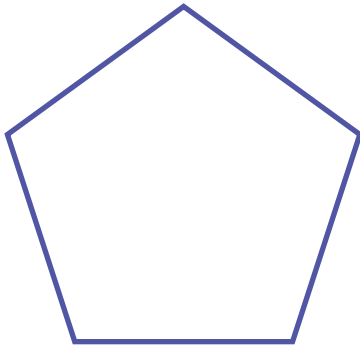


Pentagon: Calculating Area

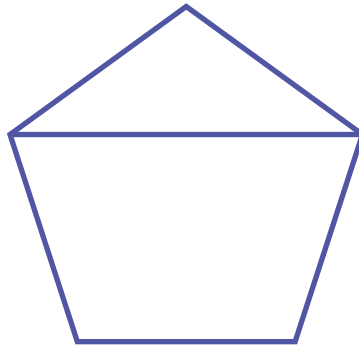
Various answers can apply.
Here are a few examples.

A pentagon contains many shapes that you probably already know. Use a ruler to divide the pentagon into regular shapes that you are familiar with. Then, name the shapes you created. This will help you practice finding the area of irregular shapes.

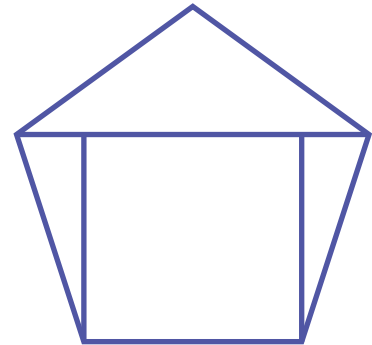
Example:



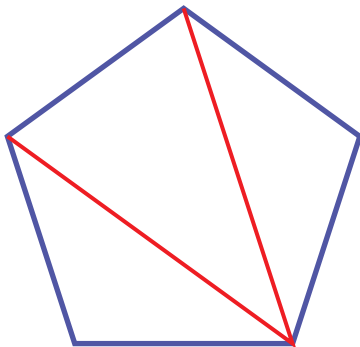
One pentagon



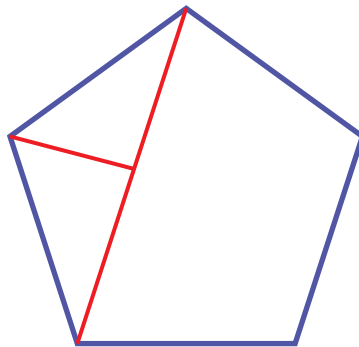
One triangle
One trapezoid



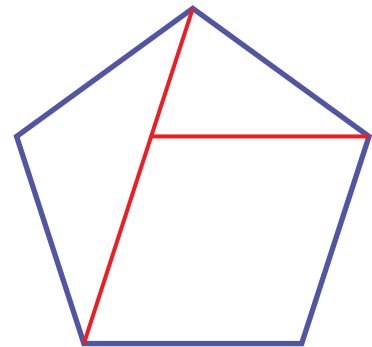
Three triangles
One square



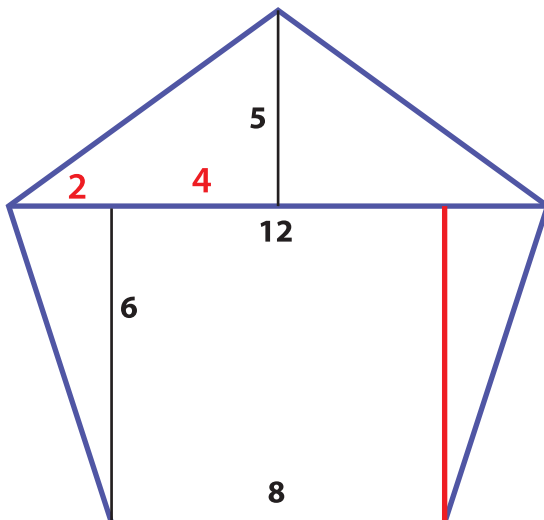
Three triangles



Two triangles
One trapezoid



One rhombus
Two triangles



Challenge!

Calculate the area of this pentagon using the heights and lengths of the geometric shapes.

$$\text{triangle area} = \frac{1}{2} \text{ base} \times \text{height}$$

$$\frac{1}{2} \times 2 \times 6 = 6$$

$$6 \times 2 \text{ triangles} = 12$$

$$\text{rectangle area} = \text{length} \times \text{width}$$

$$8 \times 6 = 48$$

$$48 \times 1 \text{ rectangle} = 48$$

$$\frac{1}{2} \times 6 \times 5 = 15$$

$$15 \times 2 \text{ triangles} = 30$$

$$12 + 30 + 48 = 90$$