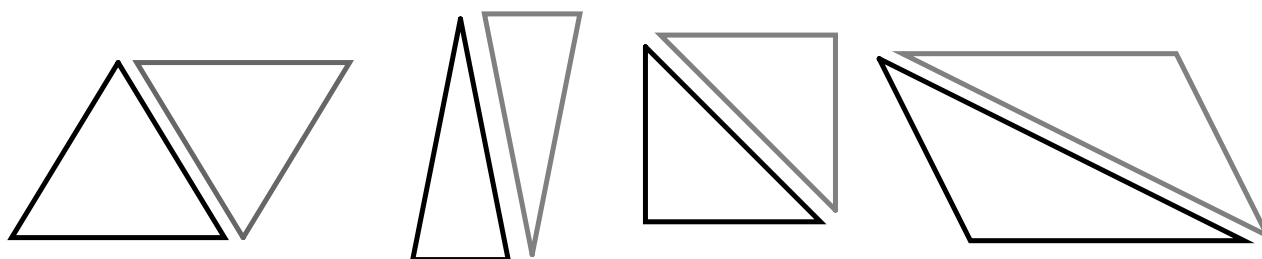


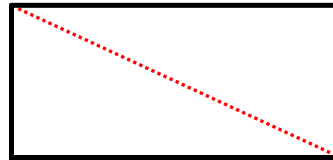
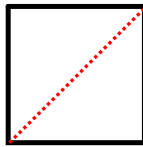
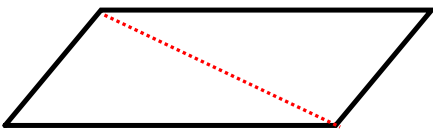
4.4 Area of a Triangle



A triangle is a parallelogram split in half, when a line segment is drawn between opposite vertices.

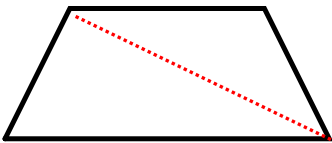
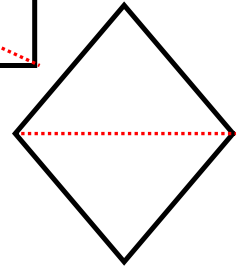
4.4

Area of a Triangle



Regular

If it is a regular polygon, then the triangles will be congruent.

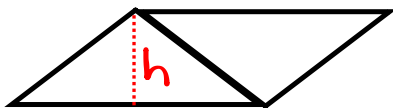


Irregular

4.4

Area of a Triangle

Formula: $A = \frac{bh}{2}$



b

$$b = 7\text{cm}$$

$$h = 3\text{cm}$$

With a parallelogram, you found the area by multiplying the base x the height. Now we will be finding half of that by multiplying the base x height and dividing by 2.

$$A \square$$

$$A = bh \cdot$$

$$A = (7)(3) \cdot$$

$$A = 21\text{cm}^2 \cdot$$

$$A \triangle$$

$$A = \frac{bh}{2} \cdot$$

$$A = \frac{(7)(3)}{2} \cdot$$

$$A = \frac{21}{2} \cdot$$

$$A = 10.5\text{cm}^2 \cdot$$

4.4 Area of a Triangle

Use a geoboard to make these four triangles. Draw the same on paper and find the area using the formula $A = \frac{bh}{2}$

The grid contains four triangles with the following calculations:

- Green Triangle:** A right-angled triangle with a base of 5 units and a height of 4 units.

$$A = \frac{bh}{2}$$

$$A = \frac{(5)(4)}{2}$$

$$A = \frac{20}{2}$$

$$A = 10\text{cm}^2$$
- Purple Triangle:** A triangle with a base of 10 units and a height of 3 units.

$$A = \frac{bh}{2}$$

$$A = \frac{(10)(3)}{2}$$

$$A = \frac{30}{2}$$

$$A = 15\text{cm}^2$$
- Blue Triangle:** A small triangle with a base of 2 units and a height of 2 units.

$$A = \frac{bh}{2}$$

$$A = \frac{2(2)}{2}$$

$$A = \frac{4}{2}$$

$$A = 2\text{cm}^2$$
- Red Triangle:** A triangle with a base of 9 units and a height of 2 units.

$$A = \frac{bh}{2}$$

$$A = \frac{(9)(2)}{2}$$

$$A = \frac{18}{2}$$

$$A = 9\text{cm}^2$$

Assignment - p. 143-147

p. 145 #2 - on Geoboards

p. 145 #1, 3, 4, 5, 6, 7, 9, 11