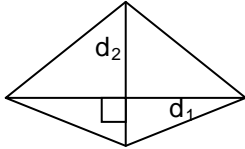


Area: Area of a Rhombus

A *rhombus* is a four-sided plane figure whose diagonals are perpendicular.

The area of a rhombus is given by the formula:

$$A = \frac{1}{2} (d_1 \cdot d_2)$$



Ex. Find the area of the rhombus, for $d_1 = 6\text{m}$, $d_2 = 3\text{m}$

$$\begin{aligned} A &= \frac{1}{2} (d_1 \cdot d_2) \\ &= \frac{1}{2} (6\text{m} \cdot 3\text{m}) \\ &= \frac{1}{2} (18\text{m}^2) = 9\text{m}^2 \end{aligned}$$

Exercise: Given the above illustration and formula, find the missing length or area.

- 1.) $d_1 = 1 \text{ ft}$, $d_2 = 2 \text{ ft}$, $A = ?$
- 2.) $d_1 = 3 \text{ in}$, $d_2 = 4 \text{ in}$, $A = ?$
- 3.) $d_1 = 5 \text{ m}$, $d_2 = 6 \text{ m}$, $A = ?$
- 4.) $d_1 = 3 \text{ cm}$, $d_2 = 6 \text{ cm}$, $A = ?$
- 5.) $d_1 = 2 \text{ mm}$, $d_2 = 4 \text{ mm}$, $A = ?$
- 6.) $d_1 = ?$, $d_2 = 6 \text{ mm}$, $A = 15 \text{ mm}^2$
- 7.) $d_1 = ?$, $d_2 = 5 \text{ nm}$, $A = 10 \text{ nm}^2$
- 8.) $d_1 = ?$, $d_2 = 6 \text{ }\mu\text{m}$, $A = 9 \text{ }\mu\text{m}^2$
- 9.) $d_1 = 2 \text{ dm}$, $d_2 = ?$, $A = 6 \text{ dm}^2$
- 10.) $d_1 = 2 \text{ km}$, $d_2 = ?$, $A = 2 \text{ km}^2$