

NAME:

Notes 6-1

Int 1

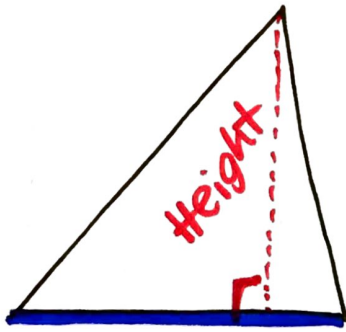
Area of Polygons

Unit 6

VOCABULARY

Polygon: 3 or more straight sides that make a closed shape.

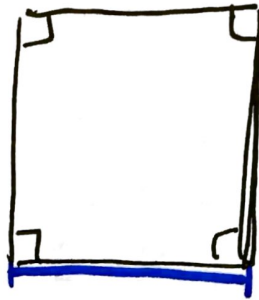
Triangle:



Base

$$A = \frac{b \cdot h}{2}$$

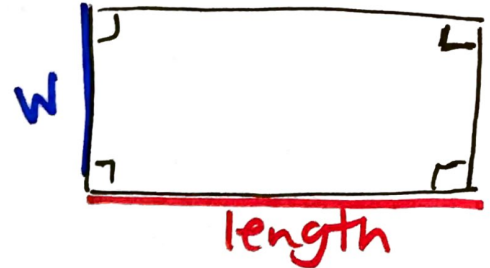
Square:



Side

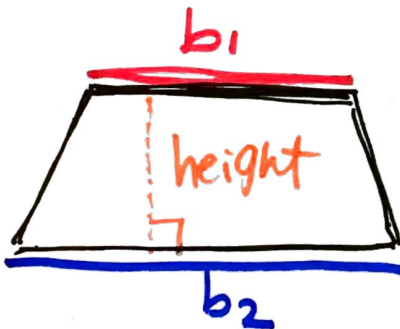
$$A = s \cdot s$$

Rectangle:



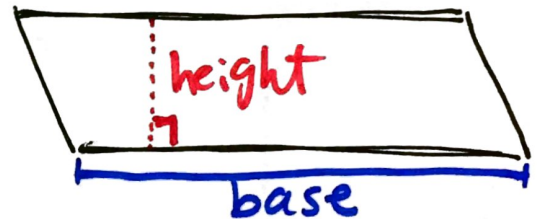
$$A = l \cdot w$$

Trapezoid:



$$A = \frac{(b_1 + b_2) \cdot h}{2}$$

Parallelogram:



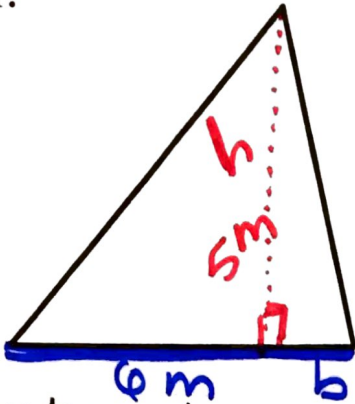
$$A = b \cdot h$$

What is **AREA**? the amount of squares (in^2 ft^2 m^2 mi^2) that fit inside

What do we need to know about each shape in order to find its AREA?
(Go back and label in the pictures above)

Find the area of each shape.

Ex. 1:



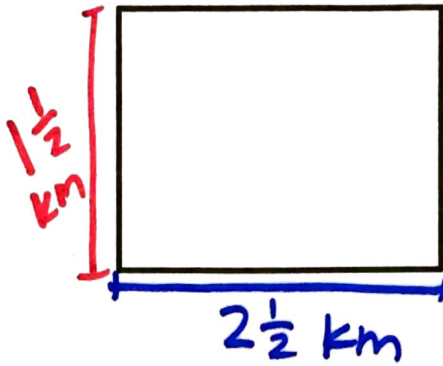
Name: triangle

What I need to know:

b: 6m
h: 5m

$$6 \cdot 5 = \frac{30}{2} = 15 \text{ m}^2 \text{ sq. m.}$$

Ex. 2:



Name: Rectangle

What I need to know:

l: 2 1/2 km
w: 1 1/2 km

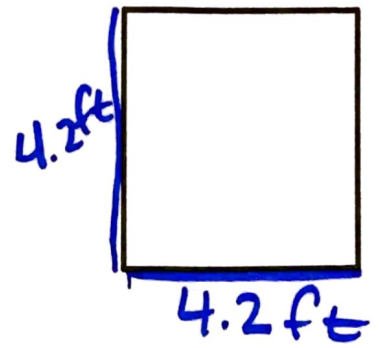
$$A = l \cdot w$$

$$2\frac{1}{2} \cdot 1\frac{1}{2} = \frac{15}{4}$$

Ex. 5:

$$3\frac{3}{4} \text{ km}^2$$

Ex. 3:



Name: SQUARE

What I need to know:

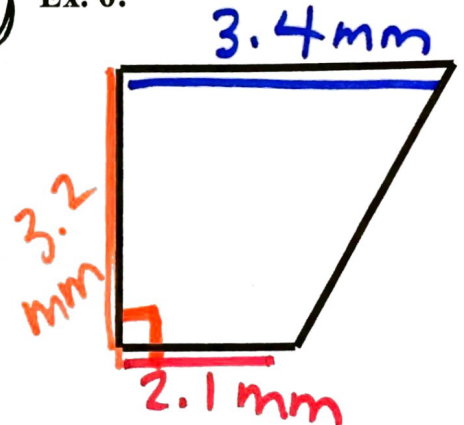
1 side = 4.2 ft

$$A = l \cdot w$$

$$4.2 \cdot 4.2$$

$$A = 17.64 \text{ ft}^2$$

Ex. 6:



Name: trapezoid

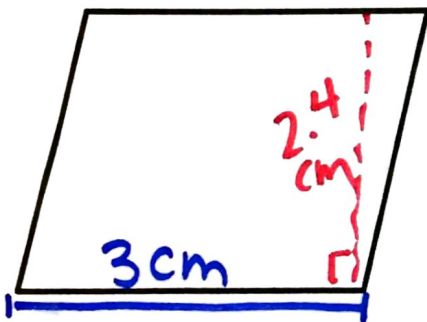
What I need to know:

b₁ = 3.4 mm
b₂ = 2.1 mm
h = 3.2 mm

$$5.5 \cdot 3.2 = \frac{17.6}{2}$$

$$8.8 \text{ mm}^2$$

Ex. 4:



Name: Parallelogram

What I need to know:

b = 3 cm
h = 2.4 cm

$$A = b \cdot h$$

$$A = 3 \cdot 2.4 = 7.2 \text{ cm}^2$$

Name: trapezoid

What I need to know:

b₁ = 4 in
b₂ = 6 in
h = 3 in

$$10 \cdot 3 = \frac{30}{2} = 15 \text{ in}^2$$