Warm Up... PSAT Feedback

1. On a scale of 1-10 how helpful were the weekly PSAT practice problems?
   (1 - no help... 10 - extremely helpful)
   Explain **why**.

2. One recommendation for next year to help students better prepare for PSAT...

Learning Goal: Today I will learn how to find the area of a parallelogram and a triangle.

Success Criteria: I am able to identify the base and use it to find area.

Burrito Books

You will need:

- scissors
- 7 pieces of paper

Burrito Books

Add the following information to the cover:

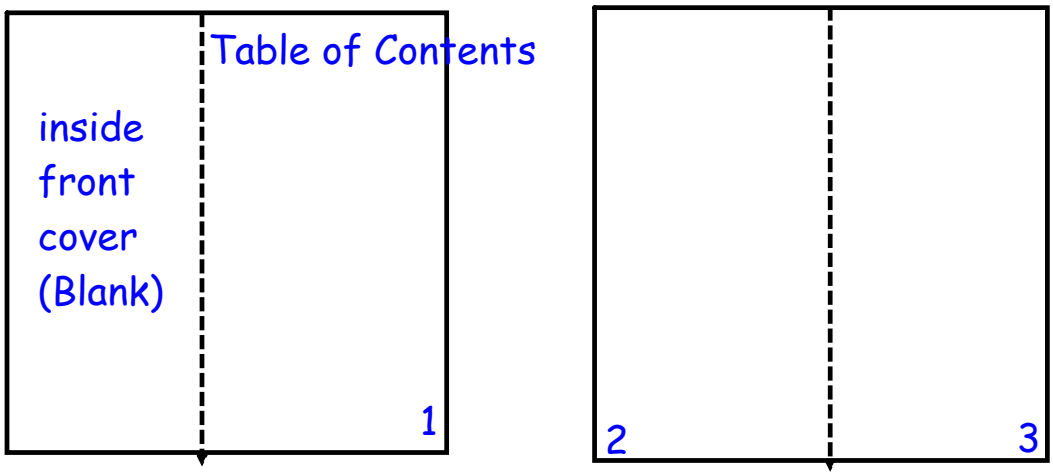
Area and Volume

(Units 10 and 11)

Your name and period

Burrito Books

Label your inside pages from 1 - 25



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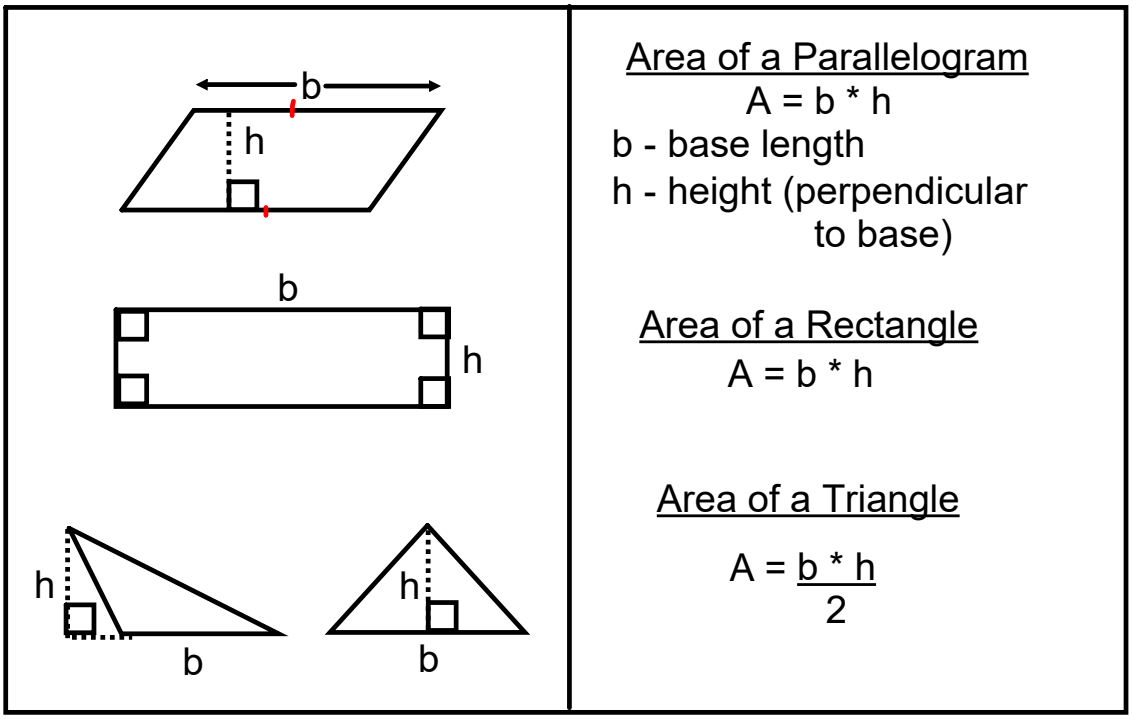


Area of a Parallelogram

$A = b * h$

b - base length

h - height (perpendicular to base)

Area of a Rectangle

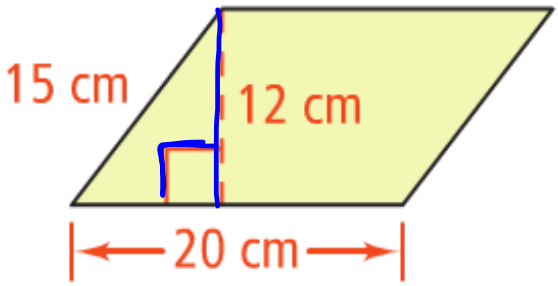
$A = b * h$

Area of a Triangle

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

10-1 Area of Parallelograms and Triangles

Example

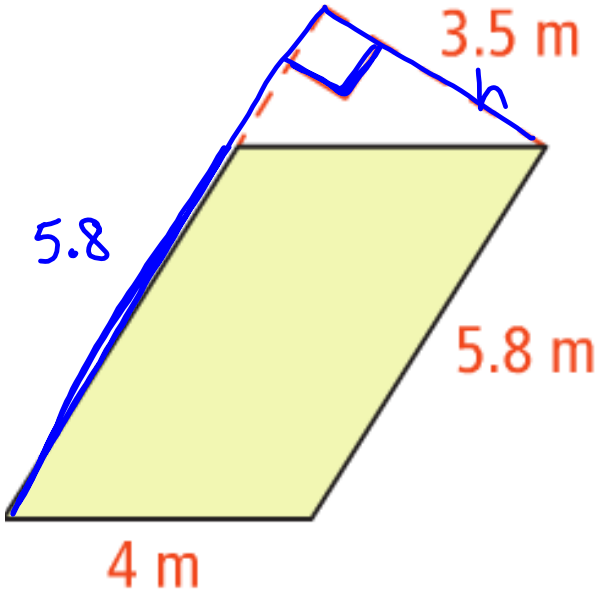


$A = bh$

$A = 20 \cdot 12$

$A = 240 \text{ cm}^2$

Example

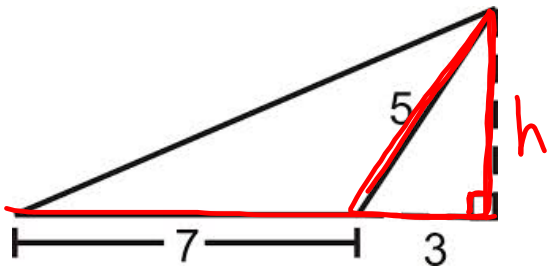


$A = bh$

$A = (5.8)(3.5)$

$A = 20.3\,m^2$

Example



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

$A = \frac{7 \cdot 4}{2} = \frac{28}{2} = 14$

$a^2 + b^2 = c^2$

$3^2 + h^2 = 5^2$

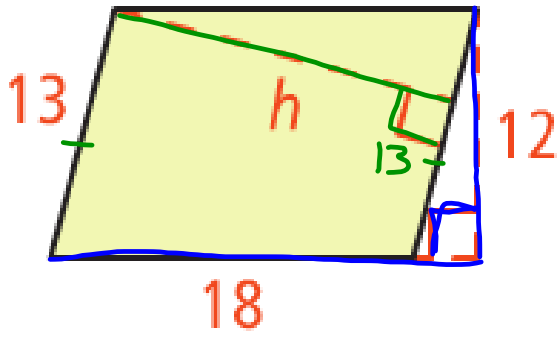
$9 + h^2 = 25$

$-9 \quad -9$

$\sqrt{h^2} = \sqrt{16}$

$h = 4$

Find the height of the parallelogram.



$A = bh$

$A = 18 \cdot 12$

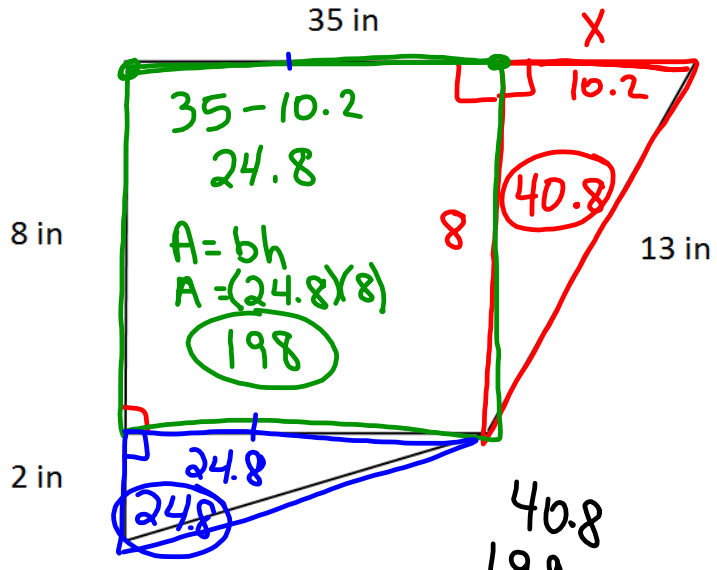
$A = 216$

$A = bh$

$\frac{216}{13} = \frac{13h}{13}$

$h = 16.6$

Example



$A = \frac{bh}{2} = \frac{(24.8)2}{2}$

40.8
198
+ 24.8
264 in²

$X^2 + 8^2 = 13^2$

$\vdots$

$X = 10.2$

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

$A = \frac{8(10.2)}{2}$

$A = \frac{81.6}{2} = 40.8$

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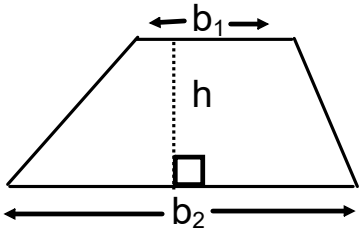
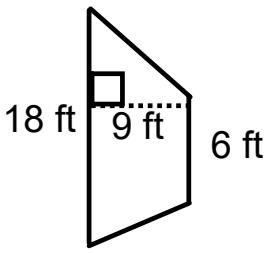


Example



Area of a Trapezoid

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

b_1 & b_2 - parallel side lengths

h - height (perpendicular to bases)

Example

$b_1 = 18$

$b_2 = 6$

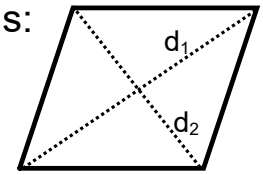
$h = 9$

$A = \frac{9(18+6)}{2}$

$A = \frac{9(24)}{2}$

$A = \frac{216}{2} = 108 \text{ ft}^2$

Rhombus:

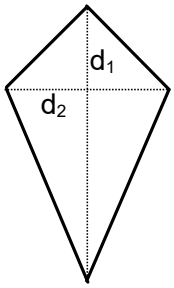


Area of a Rhombus

$$A = \frac{d1 \bullet d2}{2}$$

d_1 - length of one diagonal
d_2 - length of second diagonal

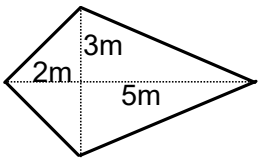
Kites:



Area of a Kite

$$A = \frac{d1 \bullet d2}{2}$$

Example:



Example:

d_1 =
d_2 =

Closure: Today I learned how to find the area of a parallelogram and triangle.

Focus on identifying the base for the side you use!