Geometry B Live Lesson Class

U5L2 – Areas of Trapezoids, Rhombuses and Kites

(Ch 10-2 in textbook)

CONNECTIONS ACADEMY®

Agenda

1. Review topics and problems from Unit 5, Lesson 2 – Areas of Trapezoids, Rhombuses and Kites

2. Use the 2-column note system to take better notes in math class. Bring your math notebook and pen or pencil to each math LiveLesson class.

2-Column Notes Template

1. Announcements/To Do's	1. Write down important details.
2. School-Wide Learner Outcomes	2. What are you going to work on this week?
3. LL Objectives	
4. Vocabulary words	4. Definitions (fill in as we go)
5. Problems	5. Steps to solving problems
6. Summary (End of class)	6. 1 or 2 sentences about the LL class.

Reminders and To – Do's

Information	What to do
1. Complete 1 math lesson per day.	1. Go to your Planner in Connexus to find the math lesson for the day
2. Check your WebMail every day	2. Go to Connexus to find WebMail
3. Be prepared to spend 4 - 6 hours per day on schoolwork.	3. Complete lessons for the day from your Planner. Do not get behind on lessons.
4. Remind your Learning Coach to take daily attendance	4. Have your Learning Coach log into Connexus daily.

Reminders and To – Do's

Information	What to do
5. Go to the Message Board first for information about our math class.	
6. Contact Mr. Elizondo for math questions. Remember: You need at least 2 phone calls with Mr. Elizondo per semester.	6. Call (559) 549 - 3244 and leave a voicemail if call is not answered. Make an appointment at: https://elizondo.youcanbook.me Send a WebMail

U5L2 – California Common Core State Standards

- HSG-MG.A.1: Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).

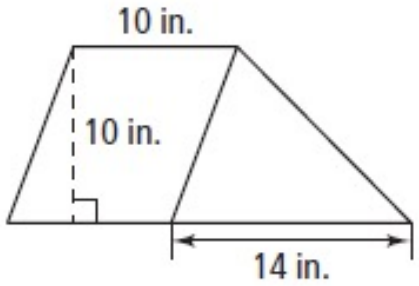
U5L2 – Objectives

Find the areas of:
-trapezoids
-rhombus
-kite

U5L2 – Composite Figures

Finding the area of known figures then adding them together to find the composite figure.

Find the area of the figure.



$A = Area\ of\ Parallelogram + Area\ of\ Triangle$

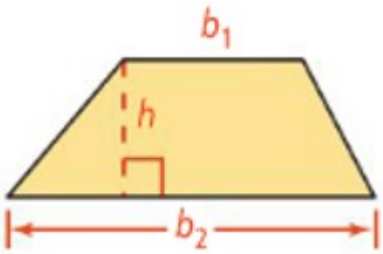
$A(Parallelogram) = 10\ in \cdot 10\ in = 100\ in^2$

$$A(Triangle) = \frac{10\ in\ \cdot 14\ in}{2} = \frac{140\ in^2}{2} = 70\ in^2$$

$$\boldsymbol{A = 170\ in^2}$$

U5L2 – Area of a Trapezoid

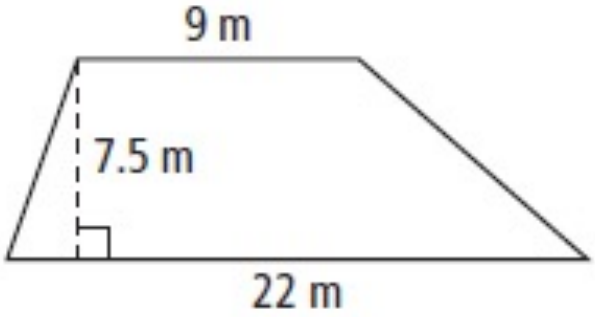
Area of a Trapezoid



$$A = \frac{1}{2}h(b_1 + b_2)$$

- In a trapezoid, the **height** is always perpendicular to both of the **bases**.

Find the area of the trapezoid.

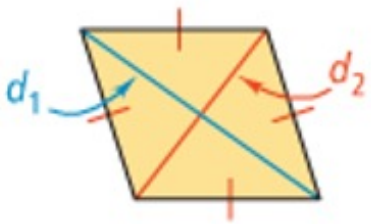


$$A = \frac{1}{2}(7.5m)(9m + 22m)$$

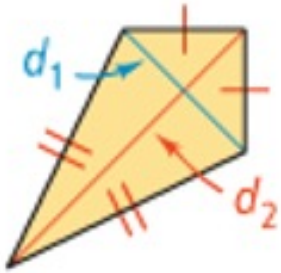
$$A = \frac{1}{2}(7.5m)(31m)$$

$$\boldsymbol{A = 116.25m^2}$$

U5L2 – Area of Rhombus/Kite



Rhombus

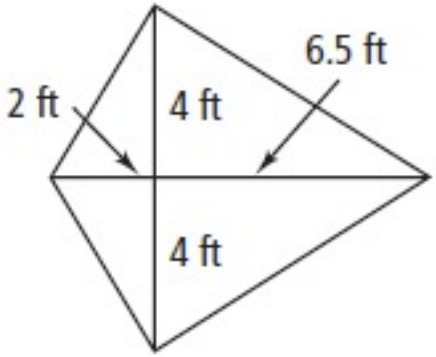


Kite

$$A = \frac{1}{2} d_1 d_2$$

Diagonals in a rhombus or kite are perpendicular to each other.

Find the area of the figure.



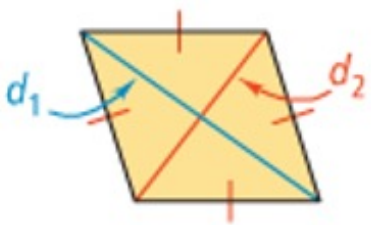
$d_1 = 8\ ft$

$d_2 = 8.5\ ft$

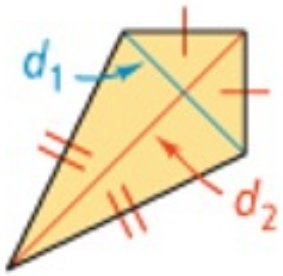
$A = \frac{1}{2}(8\ ft)(8.5 ft)$

$\boldsymbol{A = 34\ ft^2}$

U5L2 – Area of Rhombus/Kite



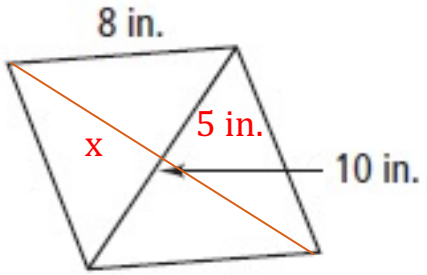
Rhombus



Kite

$$A = \frac{1}{2} d_1 d_2$$

Find the area of the figure.



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

$x^2 + 5^2 = 8^2$

$x^2 + 25 = 64$

$x^2 + 25 - 25 = 64 - 25$

$x^2 = 39$

$x = \sqrt{39}$

$d_1 = 10\ in$

$d_2 = 2\sqrt{39}\ in$

$A = \frac{1}{2}(10)(2\sqrt{39})$

$A = \frac{1}{2}(10)(12.48999)$

$A = 62.44997\ in^2$

$\boldsymbol{A = 62.5\ in^2}$

Questions?

- Check the Message Board first
- Send a WebMail
- You can also make an appointment at https://elizondo.youcanbook.me
- You can also call me at (559) 549-3244. If I'm not available to answer your call, please leave a voicemail with your full name and phone number.