6th GRADE MATH
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<u>WEEK OF April 20th-April 24th</u>

<mark>The lesson/review will be the</mark> videos and the 3 "Examples &Try it!" problems. Do this <u>BEFORE</u> the Math XL assignment for each lesson.

*This is a suggested schedule if you work ahead or at your own pace that is up to you. I will have all the Pearson assignments <u>DUE on Pearson by Sunday April 26th</u>.

On the next page are notes on Lesson 7-2/7-3 to help you throughout the lesson. I have also attached videos of myself doing Try It! Problems for examples 1 and 3.

<mark>Lesson</mark> (4/20) Monday: PEARSON REALIZE Lesson 7-2 (https://www.pearsonrealize.com)
Watch and do Try it Problems (you cannot type in an answer for the Try it! Problems but you can use the tools on the side bar to solve it on your screen)
       7-2: Example 1 & Try It!
       7-2: Example 2
       7-2: Example 3 & Try it!
Miss Blenk doing Try It! Problems to check your answers
https://youtu.be/ULhHkCOVaS0
https://youtu.be/AqKNhDpEzkI

<mark>Lesson</mark> (4/21) Tuesday: PEARSON REALIZE Lesson 7-2 watch **TWO VIDEOS**
    1. 7-2: Virtual Nerd: What is the Formula for the Area of a Triangle?
    2. 7-2: Virtual Nerd: How do you Find the Area of a Triangle?

<mark style="background-color:lightgreen">Practice</mark> (4/22) Wednesday: PEARSON REALIZE 7-1 **MathXL for School: Practice & Problem Solving.**
      *Do the 8 questions
(Use the help features on the page if stuck!)

<mark>Lesson</mark> (4/23) Thursday: <u>Watch</u> the Video on Area of Trapezoids (NOT on Pearson)
https://youtu.be/XjvVcAIJPk4
*The below link is PDF of the notes that are used in this video, you DO NOT need to fill them out, I just provided if you want to look at them along with the video https://www.emathinstruction.com/wp-content/uploads/2019/01/Math-6.Unit-9.Lesson-3.Trapzoids-and-Their-Areas.pdf

<mark>Lesson</mark> (4/24) Friday:
Watch and do Try it Problems (you cannot type in an answer for the Try it! Problems but you can use the tools on the side bar to solve it on your screen)
       7-3: Example 1 & Try It!
       7-3: Example 2
       7-3: Example 3 & Try it!
Miss Blenk doing Try It! Problems to check your answers
https://youtu.be/fK4WpVA4vv4
https://youtu.be/1gEtNdXOYkc

Lesson 7-2

You can use the formula $A = \frac{1}{2}bh$ to find the area of any triangle.
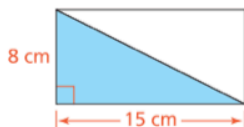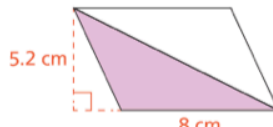
| Acute Triangle	Right Triangle	Obtuse Triangle
12 cm / 6 cm	8 cm / 15 cm	5.2 cm / 8 cm
$A = \frac{1}{2}bh$	$A = \frac{1}{2}bh$	$A = \frac{1}{2}bh$
$A = \frac{1}{2} \times 12 \times 6$	$A = \frac{1}{2} \times 15 \times 8$	$A = \frac{1}{2} \times 8 \times 5.2$

The **base of a triangle** can be any side of the triangle. The **height of a triangle** is the length of the perpendicular distance from the opposite vertex to the base.
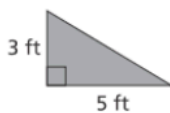
The area of a triangle can be found using the formula $A = \frac{1}{2}bh$.

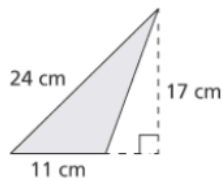1. For each triangle, write the base and the height.

8 in.   9 in.

3 ft   5 ft

24 cm   17 cm   11 cm
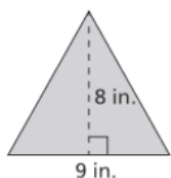
base: **9 in.**   base: **5 ft**   base: **11 cm**
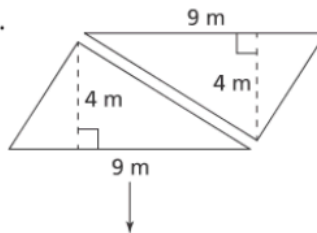height: **8 in.**   height: **3 ft**   height: **17 cm**

2. The two identical triangles shown form one parallelogram.

The lengths of the base of each triangle and of the parallelogram are the **same**. So, the base of the parallelogram is **9 m**.
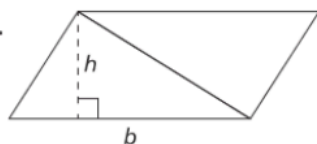
The heights of each triangle and of the parallelogram are the **same**. So, the height of the parallelogram is **4 m**.

9 m   4 m   4 m   9 m

h b

3. The formula for the area, A, of a parallelogram is
   $A = $ **b** $\times$ **h** .

So, the area of the parallelogram is **9** $\times$ **4** ,
or **36 m²**.

4. The area of each triangle is **half** the area of the parallelogram.

So, what is the area of each triangle? $\frac{1}{2} \times 36 \text{ m}^2$, **or 18 m²**

Lesson 7-3

KEY CONCEPT

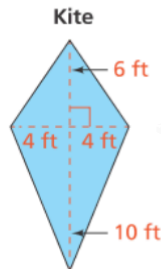You can find the area of a trapezoid or a kite by decomposing the shapes into rectangles and triangles.

Trapezoid

9 m
10 m
4.5 m
18 m

Decompose the trapezoid into two triangles and a rectangle. Find the length of the unknown triangle base.

Kite

6 ft
4 ft | 4 ft
10 ft

Decompose the kite into two identical triangles.

Each triangle: $A = \frac{1}{2}(4.5)(10) = 22.5$

Rectangle: $A = 9(10) = 90$

Trapezoid: $A = 22.5 + 22.5 + 90 = 135$

The area of the trapezoid is 135 m².

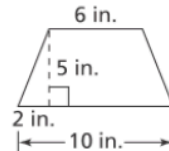Each triangle: $A = \frac{1}{2}(16)(4) = 32$

Kite: $A = 32 + 32 = 64$

The area of the kite is 64 ft².

A **trapezoid** is a quadrilateral with only one pair of opposite sides that are parallel.
A **kite** is a quadrilateral with two pairs of adjacent sides that are equal in length.

1. Is the quadrilateral at the right a trapezoid, a kite, or both?

   Trapezoid

   6 in.
   5 in.
   2 in.
   10 in.

2. To find the area of the trapezoid at the right, decompose it into one **rectangle** and one **triangle**.

   6 yd
   5 yd
   8 yd

3. **Rectangle:**
   The shorter base of the trapezoid is 6 yd.
   So, the length of the rectangle is **6 yd**.
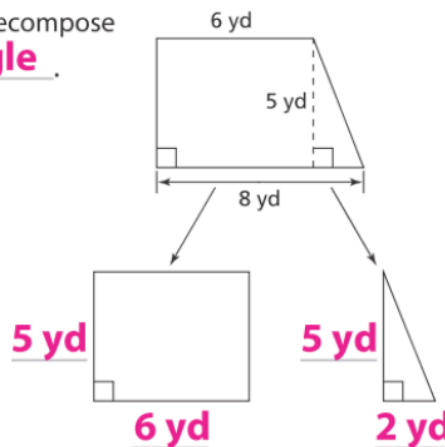
   The height of the trapezoid is 5 yd.
   So, the width of the rectangle is **5 yd**.

   Triangle:
   The height of both the trapezoid and the triangle is **5 yd**.

   Subtract the bases of the trapezoid to find the base of the triangle. $8 - \underline{\textbf{6}} = \underline{\textbf{2}}$ yd.

   Label the shapes at the right by writing on the blank lines.

   5 yd   **5 yd**
   6 yd   **2 yd**

4. Find the areas of the rectangle and the triangle.

   Rectangle

   $A = \ell \times \underline{\textbf{w}}$

   $A = \underline{\textbf{6}} \times \underline{\textbf{5}} = \underline{\textbf{30}}$ yd²

   Triangle

   $A = \frac{1}{2} \times \underline{\textbf{b}} \times h$

   $A = \frac{1}{2} \times \underline{\textbf{2}} \times \underline{\textbf{5}} = \underline{\textbf{5}}$ yd²

5. The area of the trapezoid is the sum of the areas of the rectangle and the triangle. The area of the trapezoid is **35** yd².