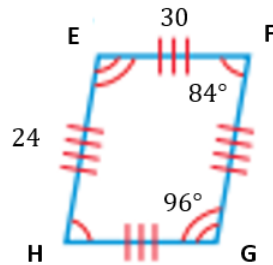
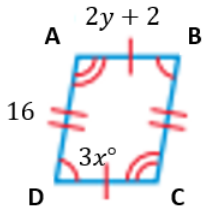


**Math 2**  
**Unit 4A Test Review**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1) If *quadrilateral ABCD* ~ *quadrilateral EFGH* then find the following:



$x =$  \_\_\_\_\_

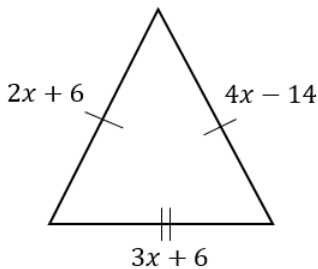
$y =$  \_\_\_\_\_

$AB =$  \_\_\_\_\_

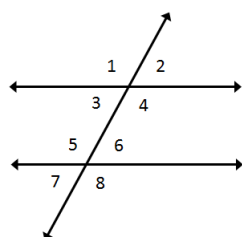
2) A building casts a 270 ft shadow. A 6 ft tall man casts a shadow measuring 9 ft. What is the height of the building? Draw a diagram with similar triangles.

3) An equilateral triangle  $\triangle ABC$  has the following lengths.  $AB = 2x + 18$ ;  $BC = 7x - 17$ ;  $AC = 4x + 4$ . Find the value of  $x$  and the three sides.

4) Find the value of  $x$  and the side lengths of the following triangle:



5) List all of the angles that meet the relationship. Then determine the value of each angle given that the  $m\angle 1 = 130^\circ$



**Vertical:** \_\_\_\_\_

$m\angle 1 = 130^\circ$      $m\angle 5 =$  \_\_\_\_\_

**Corresponding:** \_\_\_\_\_

$m\angle 2 =$  \_\_\_\_\_     $m\angle 6 =$  \_\_\_\_\_

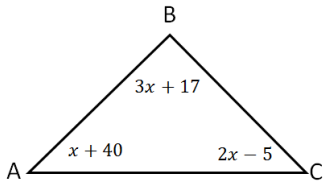
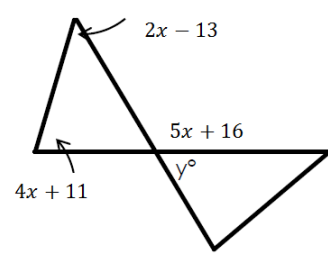
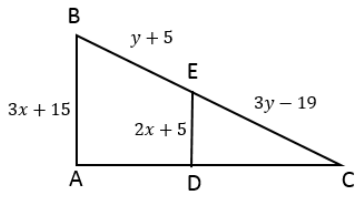
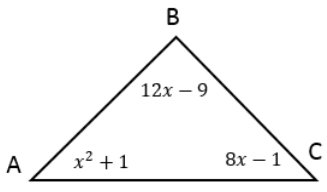
**Alternate Interior:** \_\_\_\_\_

$m\angle 3 =$  \_\_\_\_\_     $m\angle 7 =$  \_\_\_\_\_

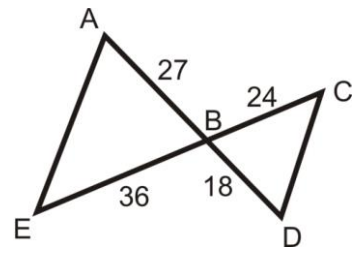
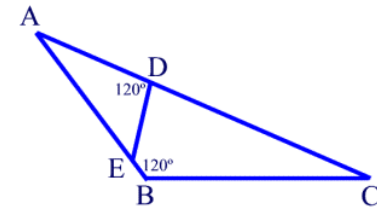
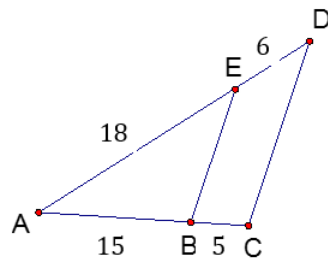
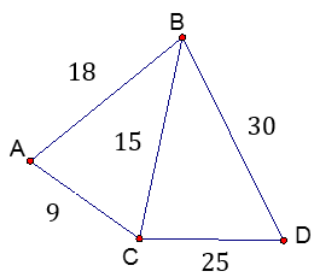
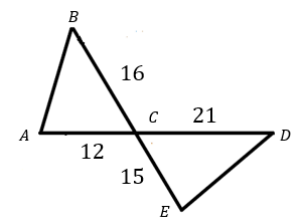
**Alternate Exterior:** \_\_\_\_\_

$m\angle 4 =$  \_\_\_\_\_     $m\angle 8 =$  \_\_\_\_\_

**Linear Pairs:** \_\_\_\_\_

<p>6) Find <math>x</math> and the measures of each angle</p>  <p> <math>x = \underline{\hspace{2cm}}</math>  <math>m\angle A = \underline{\hspace{2cm}}</math>  <math>m\angle B = \underline{\hspace{2cm}}</math>  <math>m\angle C = \underline{\hspace{2cm}}</math> </p>	<p>7) Find <math>x</math> and <math>y</math></p>  <p> <math>x = \underline{\hspace{2cm}}</math>  <math>y = \underline{\hspace{2cm}}</math> </p>
<p>8) D and E are midpoints. Find the following:</p>  <p> <math>x = \underline{\hspace{2cm}}</math>  <math>AB = \underline{\hspace{2cm}}</math>  <math>DE = \underline{\hspace{2cm}}</math>  <math>y = \underline{\hspace{2cm}}</math> </p>	<p>9) Find <math>x</math> and the measures of each angle</p>  <p> <math>x = \underline{\hspace{2cm}}</math>  <math>m\angle A = \underline{\hspace{2cm}}</math>  <math>m\angle B = \underline{\hspace{2cm}}</math>  <math>m\angle C = \underline{\hspace{2cm}}</math> </p>

Determine if the triangles are similar. If yes, make a similarity statement and give the reason why they are similar. If they are not similar, write "not similar".

<p>10) <math>\triangle AEB \sim \triangle \underline{\hspace{2cm}}</math> by <math>\underline{\hspace{2cm}}</math></p> 	<p>11) <math>\triangle ABC \sim \triangle \underline{\hspace{2cm}}</math> by <math>\underline{\hspace{2cm}}</math></p> 
<p>12) <math>\triangle ABE \sim \triangle \underline{\hspace{2cm}}</math> by <math>\underline{\hspace{2cm}}</math></p> 	<p>13) <math>\triangle ABC \sim \triangle \underline{\hspace{2cm}}</math> by <math>\underline{\hspace{2cm}}</math></p> 
<p>14) <math>\triangle ABC \sim \triangle \underline{\hspace{2cm}}</math> by <math>\underline{\hspace{2cm}}</math></p> 	<p>15) <math>\triangle ABC \sim \triangle \underline{\hspace{2cm}}</math> by <math>\underline{\hspace{2cm}}</math></p> 