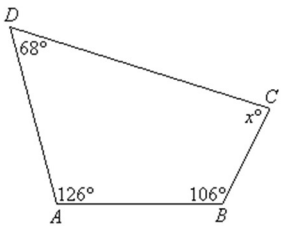
You will attach Ch. 9 Calendar to this page!

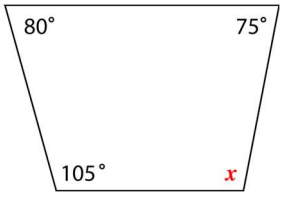
Continued on next page…

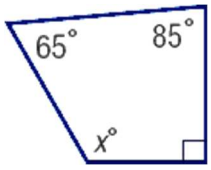
Continued on next page…

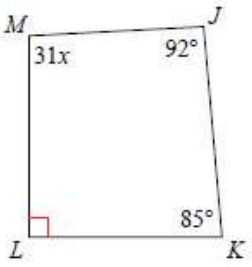
9.1 Worksheet: Show your work! **Name** _____

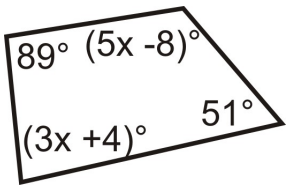
For #1 – 6, find the value of x.

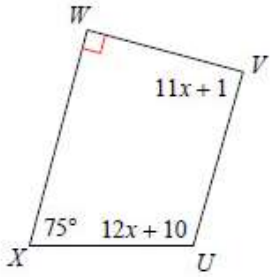
1) 

2) 

3) 

4) 

5) 

6) 

For #7 – 12, find the sum of the interior angles for each polygon.

7) heptagon

8) 14-sided polygon

9) Pentagon

10) quadrilateral

11) nonagon

12) Decagon

Continued on next page…

13) Which of the following is true for a regular polygon? Choose all that apply.

A) All sides are congruent.
B) All angles are congruent.
C) All angles add up to 360 degrees.
D) Each angle has a measure of 90 degrees.

For #14 – 17, find the measure of *one* angle for each regular polygon.

14) hexagon

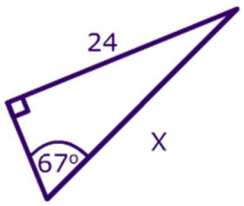
15) octagon

16) triangle

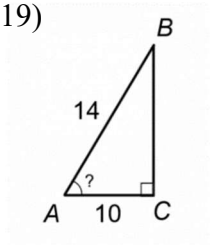
17) dodecagon (12 sides)

For #18 – 19, use right triangle trigonometry to find the value of each variable. Hint: use Soh-Cah-Toa.

18)



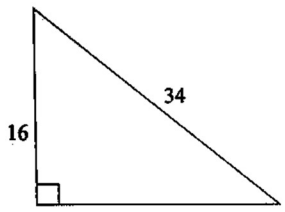
19)



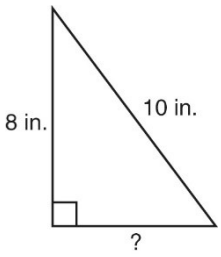
For #20 – 22, use triples to find the missing side of each right triangle.

Reminder: 3-4-5, 5-12-13, 8-15-17, and 7-24-25

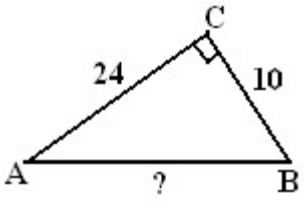
20)



21)



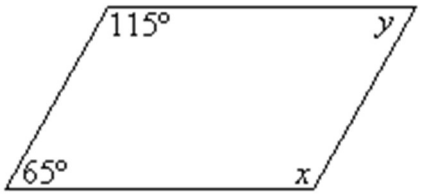
22)

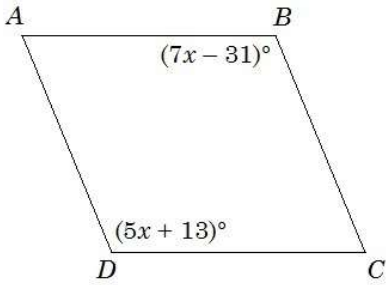


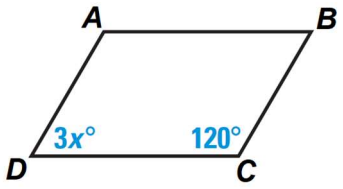
Continued on next page…

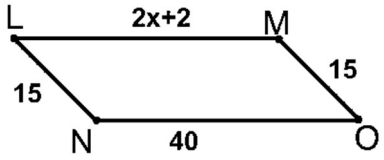
9.2 Worksheet: Show your work! **Name** _____

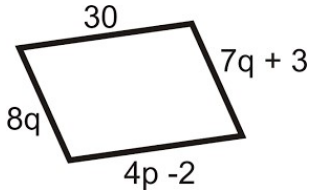
For #1 – 9, each quadrilateral shown is a parallelogram. Find the value of each variable.

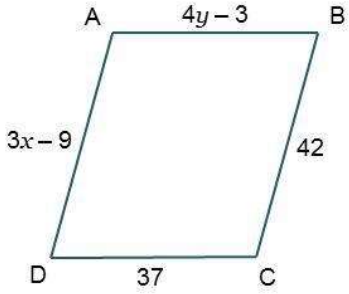
1) 

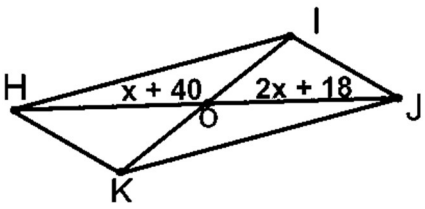
2) 

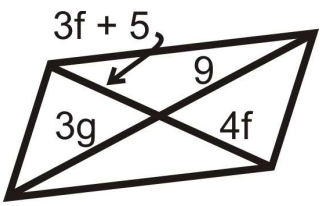
3) 

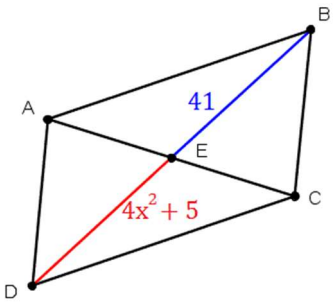
4) 

5) 

6) 

7) 

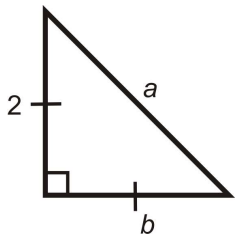
8) 

9) 

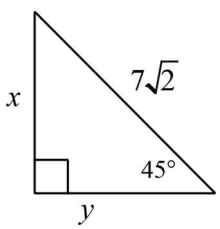
Continued on next page…

For #10 – 13, find the variables for each special right triangle.

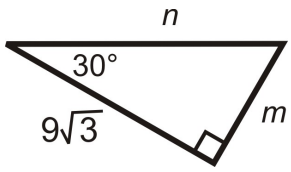
10)



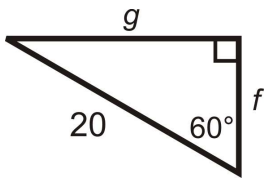
11)



12)



13)



For #14 – 18, decide if each statement is TRUE or FALSE.

14) All sides are congruent for all parallelograms.

15) The opposite angles of a parallelogram are congruent.

16) The diagonals of a parallelogram bisect each other.

17) The diagonals of a parallelogram are always congruent.

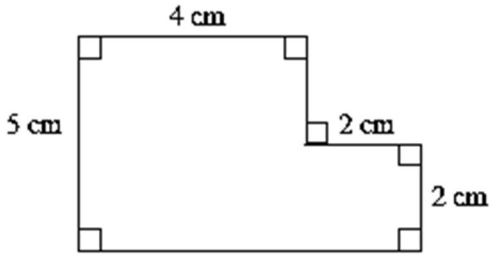
18) The consecutive angles of a parallelogram are supplementary.

Continued on next page…

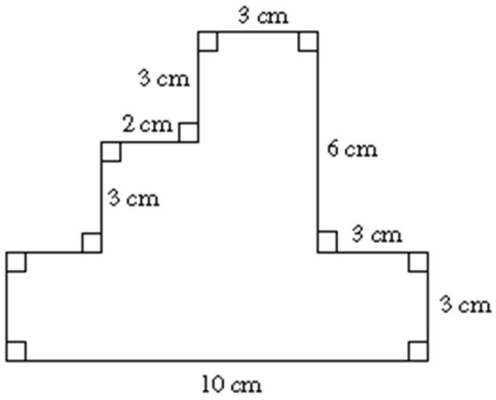
9.3 Worksheet: **Show your work!** **Name** _____

For #1 – 2, find the perimeter of each shape.

1)

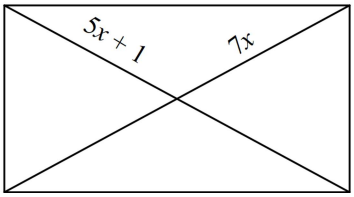


2)

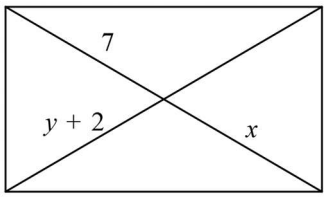


For #3 – 5, solve for the variable for each rectangle.

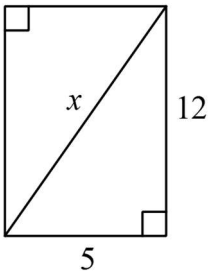
3)



4)



5)



For #6 – 8: A rectangle has a width of 8 and a diagonal of 10.

6) Find the height of the rectangle. Draw a picture!

7) Find the perimeter of the rectangle.

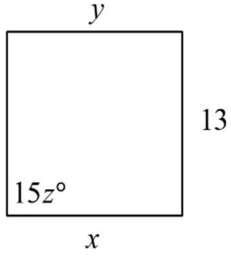
8) Find the area of the rectangle.

9) A square has an area of 49 m^2. Find the perimeter of the square.

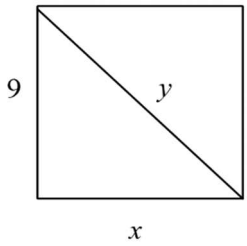
Continued on next page…

For #10 – 12, find the variable for each square.

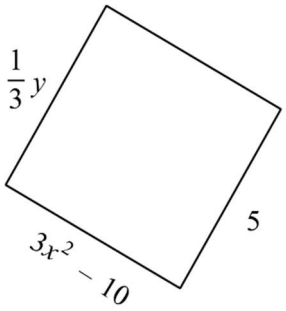
10)



11)



12)



13) A square has side lengths of 10 cm. Find the length of the diagonal (as a simplified radical.)

For #14 – 15: The diagonal of a square is $5\sqrt{2}$ mm.

14) Find the perimeter of the square.

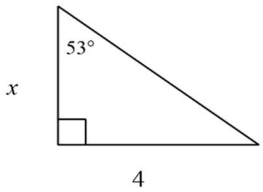
15) Find the area of the square.

For #16 – 17, solve each equation for the variable.

16) $-3(2x + 5) - 7x = 4x + 16$

17) $\frac{1}{3}x + 10 = 26$

18) Find x. Use Soh-Cah-Toa. Round to one decimal place.

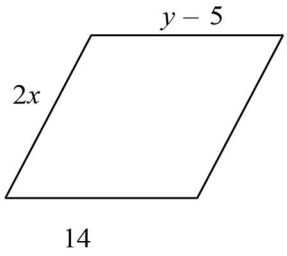


Continued on next page…

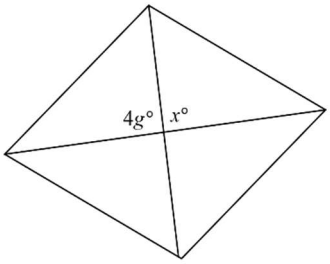
9.4 Worksheet: **Show your work!** **Name** _____

For #1 – 6, find the variable(s) for each rhombus shown.

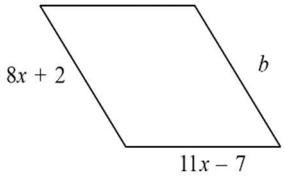
1)



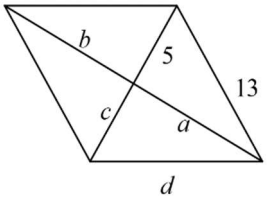
2)



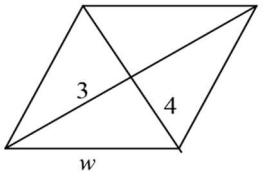
3)



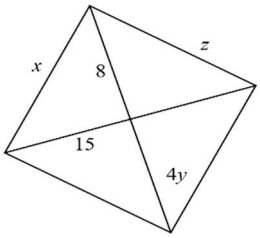
4)



5)

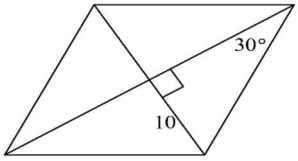


6)

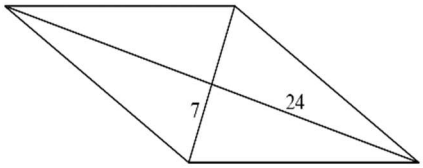


For #7 – 8, find the perimeter of each rhombus shown.

7)



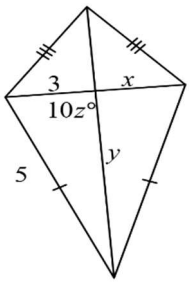
8)



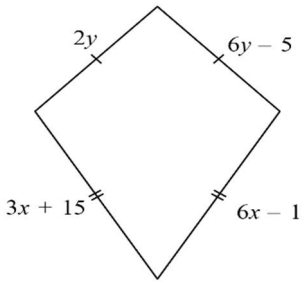
Continued on next page…

For #9 – 11, find the variable(s) for each kit shown.

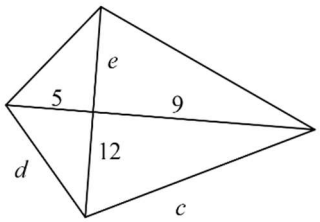
9)



10)



11)

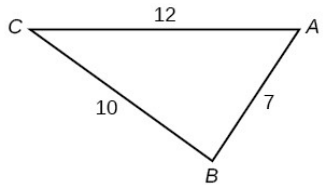


12) A triangle has two known side lengths of 6 and 10. Which of the following *could* be a length of the third side? Choose all that apply.

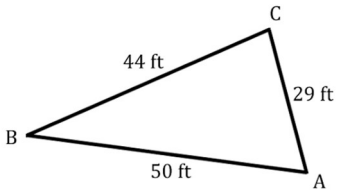
A) 4 B) 14 C) 2 D) 11 E) 8 F) 16

For #13 – 14, which is the largest angle in the diagram shown?

13)

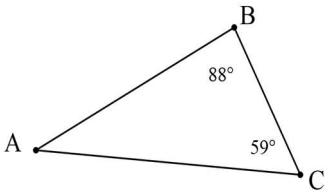


14)

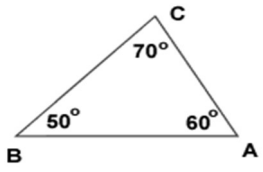


For #15 – 16, which side is the smallest in each triangle shown?

15)



16)



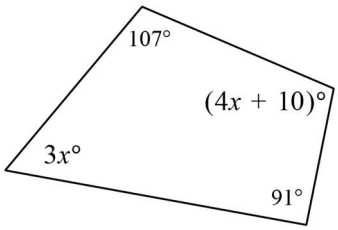
Continued on next page…

Chapter 9 Review Worksheet (HOMEWORK): **Name** _____

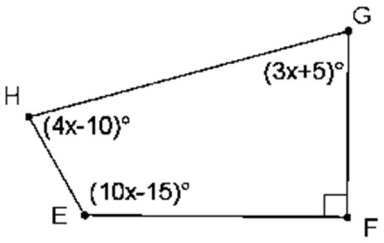
*Note: there are **3 pages** to this assignment! Don't forget the last page* 😊

For #1 – 2, find the missing variable for each quadrilateral.

1)



2)



For #3 – 4, find the sum of the interior angles for each polygon. Use $S = (n-2) \cdot 180$

3) hexagon

4) decagon

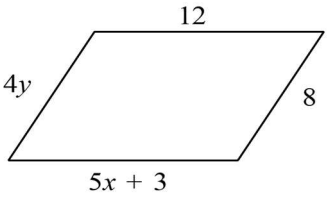
For #5 – 6, find the measure of *one* interior angle for each regular polygon. Use $\frac{(n-2)\cdot 180}{n}$

5) octagon

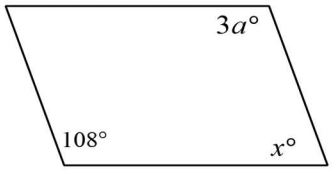
6) pentagon

For #7 – 9, find the value of each variable. Each shape is a parallelogram.

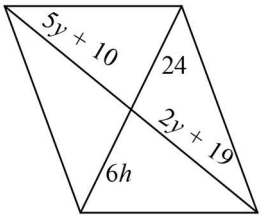
7)



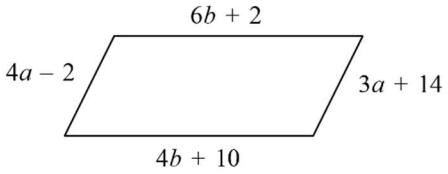
8)



9)



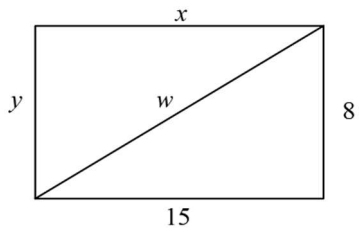
10) Find the perimeter of the parallelogram.



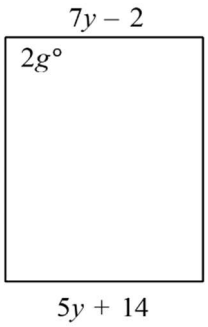
Continued on next page…

For #11 – 13, each shape is a rectangle. Find the measure of each variable.

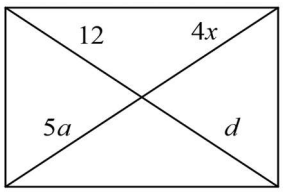
11)



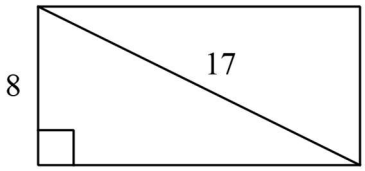
12)



13)

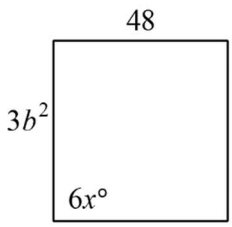


14) Find the area and perimeter of the rectangle shown:

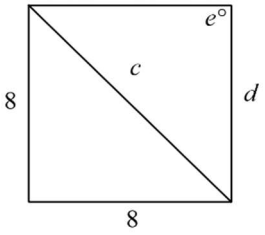


For #15 – 16, each shape is a square. Find the measure of each variable.

15)

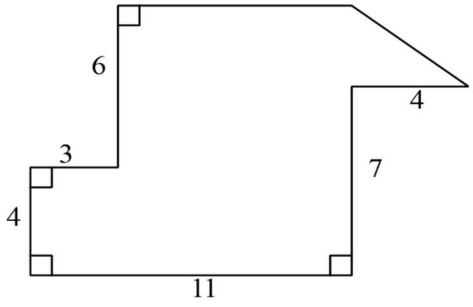


16)

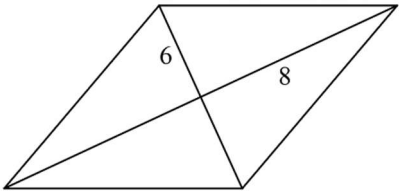


17) A square has a diagonal of $6\sqrt{2}$ inches. Find the perimeter and area of the square.

18) Find the perimeter of the shape below.



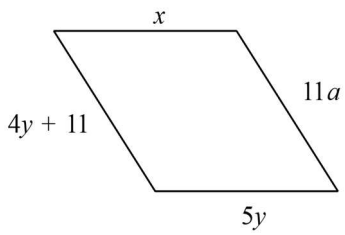
19) Find the perimeter of the rhombus below.



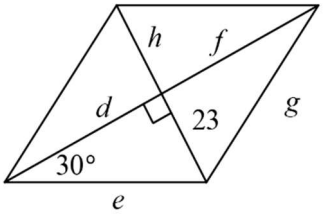
Continued on next page…

For #20 – 21, each shape is a rhombus. Find the value of the variable(s).

20)

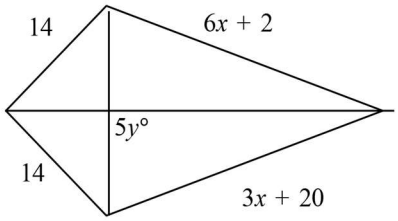


21)

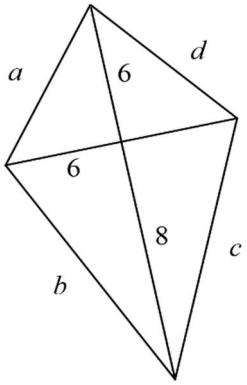


For #22 – 23, each shape is a kite. Find the value of the variable(s).

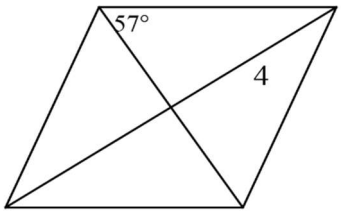
22)



23)



Bonus! Find the perimeter of the rhombus shown below, rounded to the nearest tenth.



Continued on next page…

End of Ch. 9 HOMEWORK

Continued on next page…