

NTI Day 11

Date _____ Period _____

Find the midpoint of the line segment with the given endpoints.**Hint: Midpoint Formula is $\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$**

1) $(-10, 8), (5, -9)$

2) $(-4, 0), (5, 3)$

3) $(-10, -10), (8, 10)$

4) $(10, 2), (-5, -3)$

5) $(4, 3), (-6, 4)$

6) $(9, -5), (-1, 5)$

Find the distance between each pair of points.**Hint: Distance Formula = $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$**

7) $(-7, -2), (5, 2)$

8) $(-4, 2), (-5, 8)$

9) $(-1, 6), (3, 2)$

10) $(-2, 4), (2, 3)$

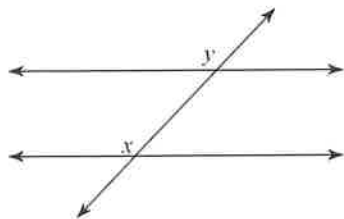
11) $(-5, -4), (-2, -1)$

12) $(-8, -2), (-6, 6)$

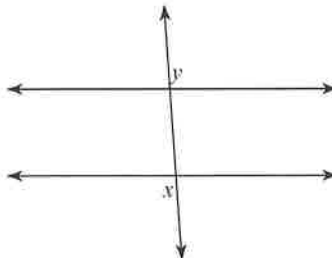
NTI Day 12 and 13

Identify each pair of angles as corresponding, alternate interior, alternate exterior, same-side interior, vertical, or adjacent.

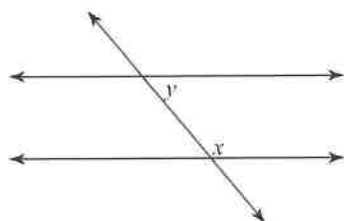
1)



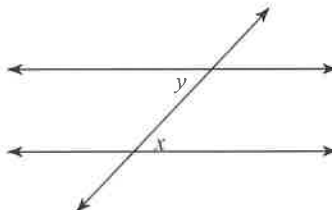
2)



3)

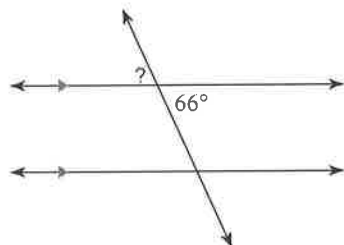


4)

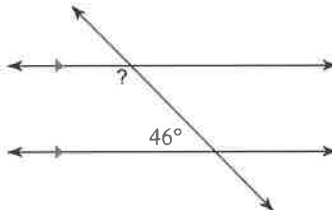


Find the measure of each angle indicated.

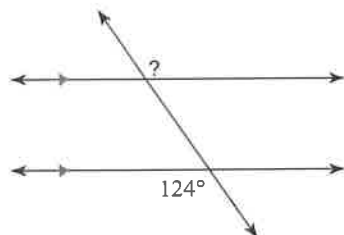
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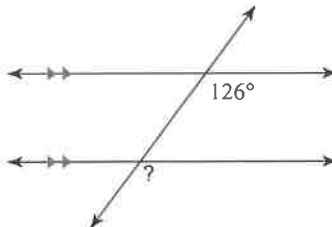
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7)

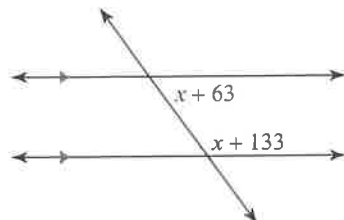


8)

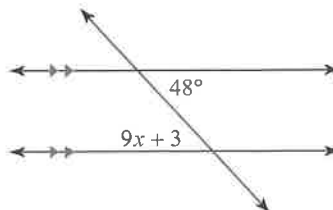


Solve for x.

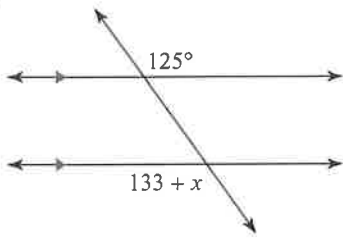
9)



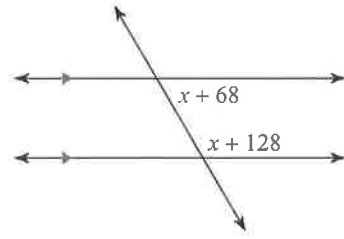
10)



11)

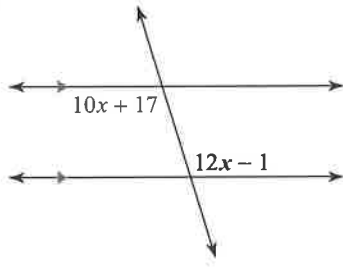


12)

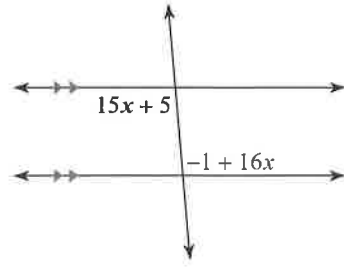


Find the measure of the angle indicated in bold.

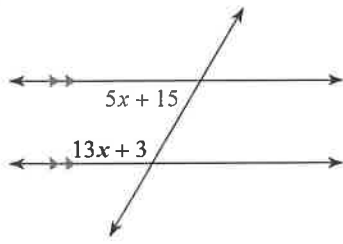
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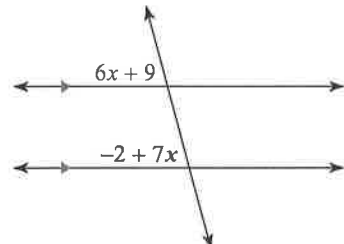
14)



15)

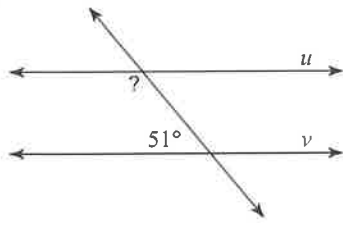


16)

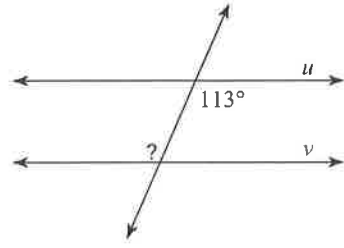


Find the measure of the indicated angle that makes lines u and v parallel.

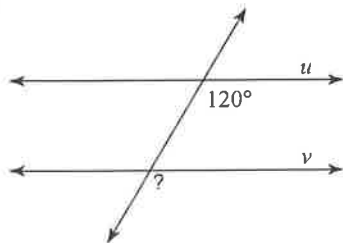
17)



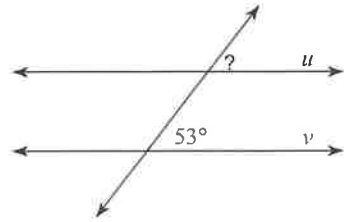
18)



19)



20)

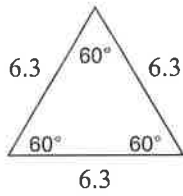


NTI Day 14 and 15

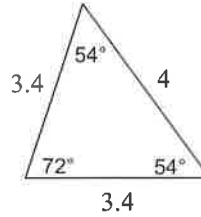
Classify each triangle by its sides.

Hint: Use scalene, isosceles or equilateral.

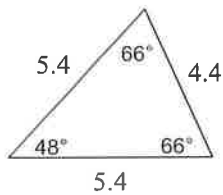
1)



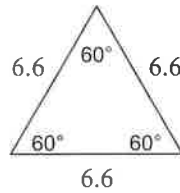
2)



3)



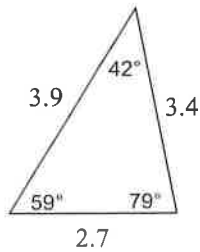
4)



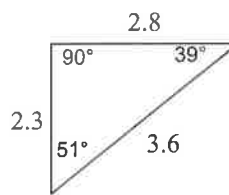
Classify each triangle by its angles.

Hint: Use acute, right, obtuse or equiangular.

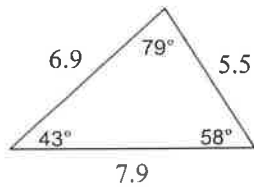
5)



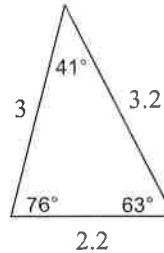
6)



7)



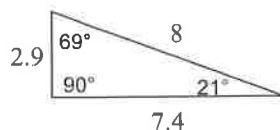
8)

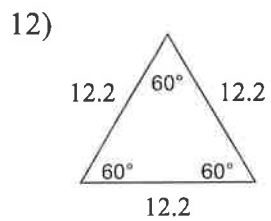
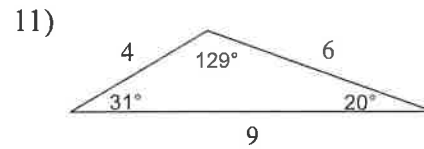
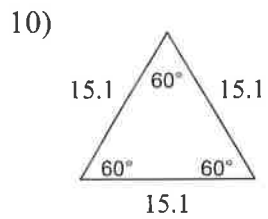


Classify each triangle by its angles and sides.

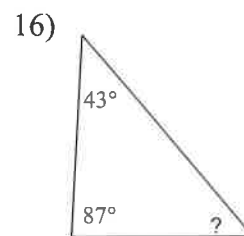
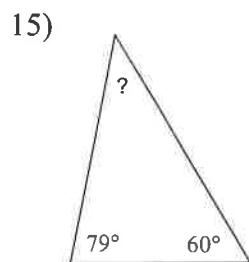
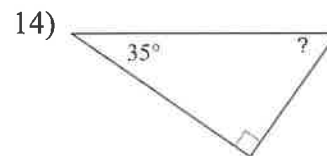
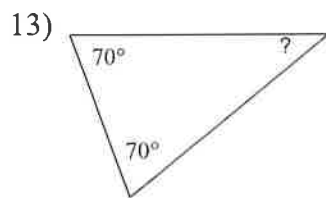
Hint: For sides, use scalene, isosceles or equilateral. For angles, use acute, right, obtuse or equilateral.

9)

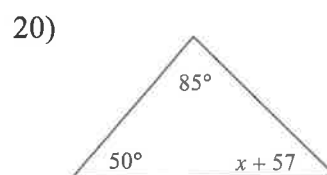
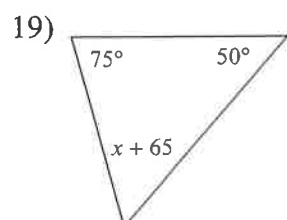
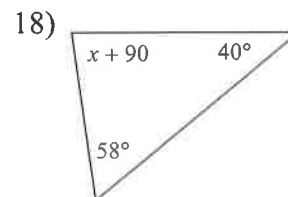
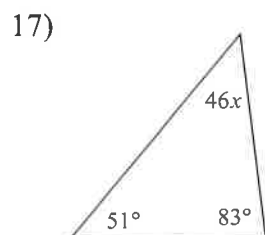




**Find the measure of each angle indicated.
Remember: Triangles must add up to be 180.**



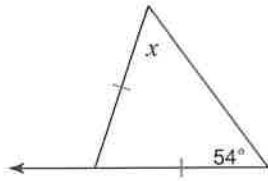
Solve for x .



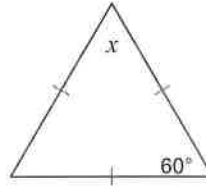
NTI Day 16 and 17

Find the value of x .

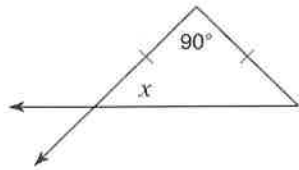
1)



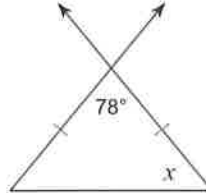
2)



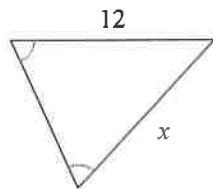
3)



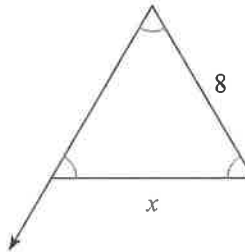
4)



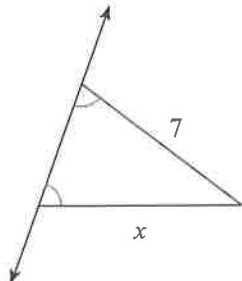
5)



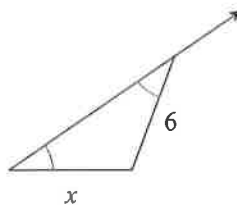
6)



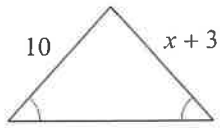
7)



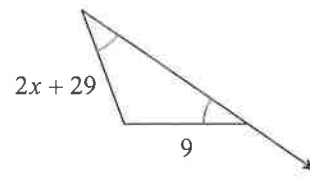
8)



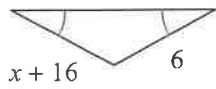
9)



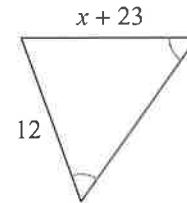
10)



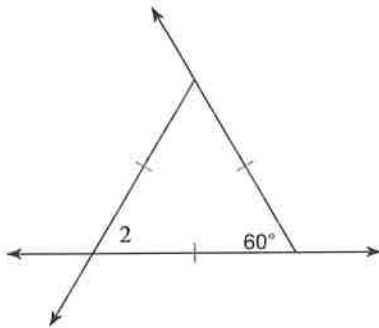
11)



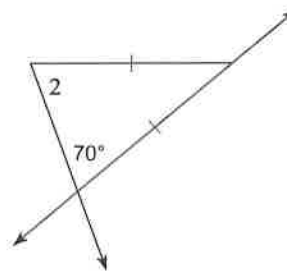
12)



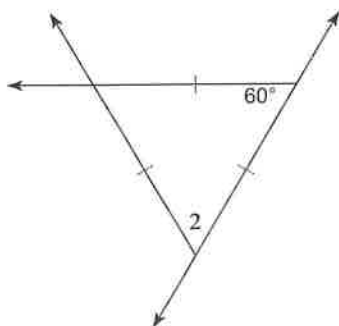
13) $m\angle 2 = x + 69$



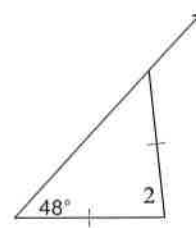
14) $m\angle 2 = 7x + 7$



15) $m\angle 2 = x + 68$



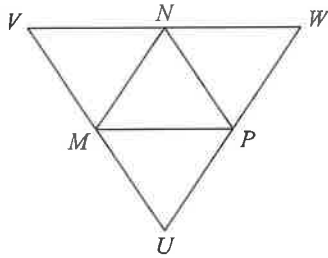
16) $m\angle 2 = 91 + x$



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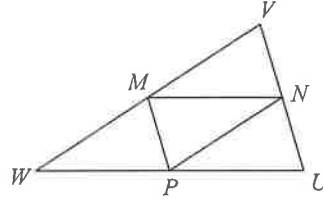
In each triangle, M, N, and P are the midpoints of the sides. Name a segment parallel to the one given.

1)



$\overline{UW} \parallel \underline{\hspace{1cm}}$

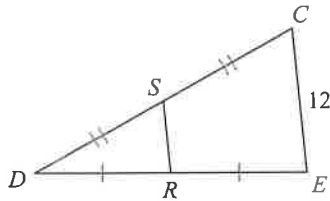
2)



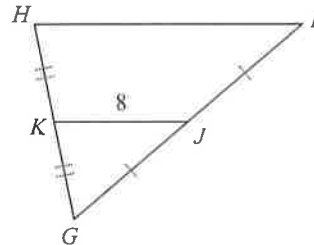
$\underline{\hspace{1cm}} \parallel \overline{MN}$

Find the missing length indicated.

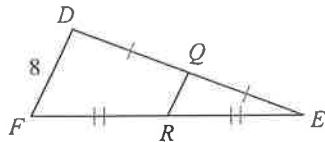
3) Find RS



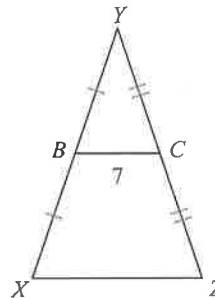
4) Find FH



5) Find QR

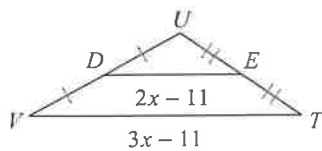


6) Find XZ

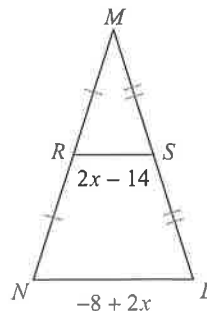


Solve for x.

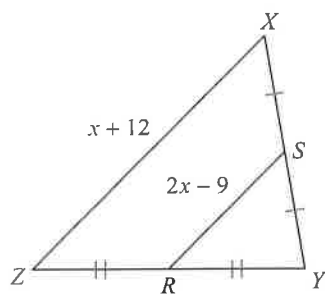
7)



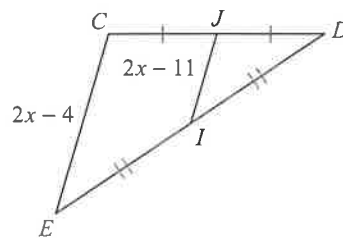
8)



9)

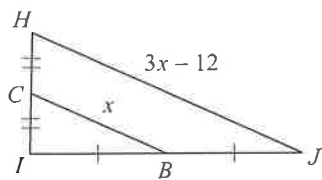


10)

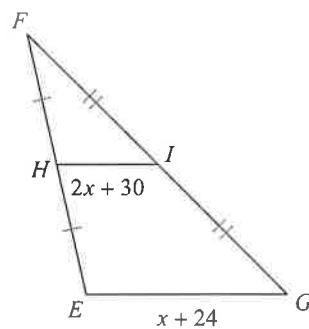


Find the missing length indicated.

11) Find BC

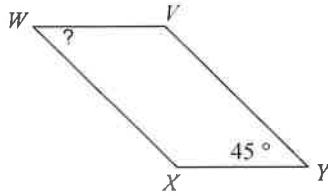


12) Find HI

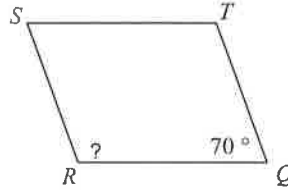


Find the measurement indicated in each parallelogram.

1)

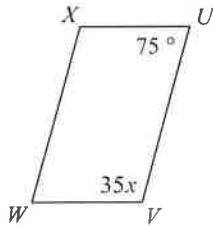


2)

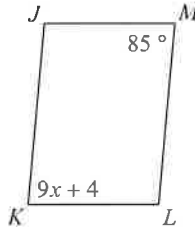


Solve for x . Each figure is a parallelogram.

3)

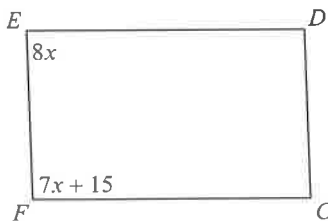


4)

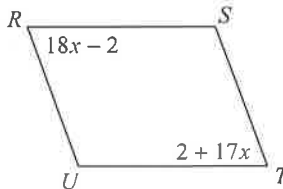


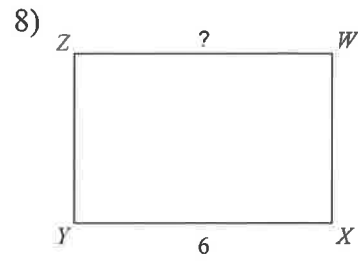
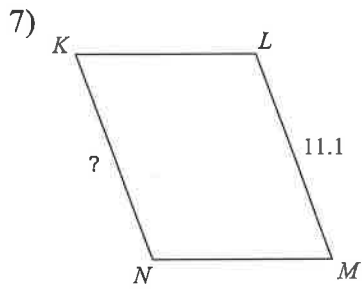
Find the measurement indicated in each parallelogram.

5) Find $m\angle F$

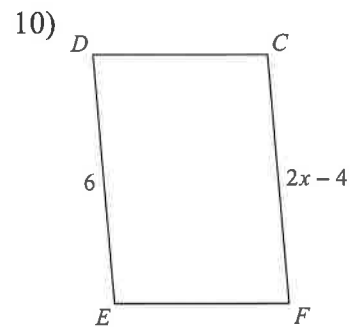
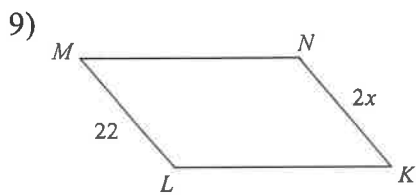


6) Find $m\angle S$



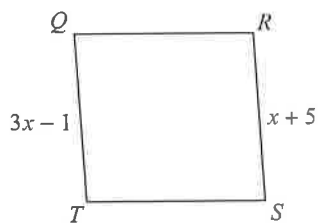


Solve for x . Each figure is a parallelogram.

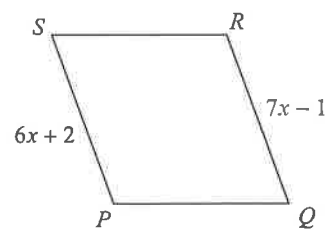


Find the measurement indicated in each parallelogram.

11) Find RS



12) Find RQ



-You may choose to do this assignment. It is NOT required. It will replace 4 days of work.

Project 20 - HOW MUCH DOES IT COST TO PAINT YOUR LIVING ROOM?

Introduction: When we hire someone to paint our house, the cost can range from \$500 to several thousand dollars. The paint is inexpensive, but the labor required is costly. In this project you will play the role of a painting contractor, and prepare a price estimate of the cost to paint your own living room. In order to prepare this price estimate, you will need to measure the surface area, estimate the amount of paint required, and estimate the number of hours required to paint your living room.

Procedure:

1. First, you will need to calculate the total number of square feet that you will be painting. Measure each rectangular region that is to be painted and obtain the length and width in feet. Multiply the length (ft) times the width (ft) to obtain the square feet of each rectangular region. Do not include areas that are not painted such as doorways or windows. Remember to take all measurements in feet.

Example: Starting from the front door you measure 10 ½ feet to the corner. You measure the height of your walls to be 8 feet. The square feet in this region are 8 ft X 10 ½ ft = 84 square feet. Then, proceed to measure all of the rectangular regions of your living room walls.

CALCULATIONS

2. Add all of the square feet calculated in step 1. Record this figure.

TOTAL SQUARE FEET _____

3. Select a brand of paint that you would use if you were to actually paint your living room. Note what the price per gallon is, and how many square feet each gallon covers. You will use these two figures in calculating your estimate.

PRICE PER GALLON \$_____

SQUARE FEET COVERED PER GALLON_____

4. Using your total square feet calculated and the number of square feet each gallon covers, calculate how many gallons would be required to paint your living room. Then, calculate how many gallons would be required to apply two coats.

Example: If each gallon covers 500 square feet, and you are painting 900 total square feet, the number of gallons required would be $900 \div 500 = 1.8$ gallons. To apply two coats, 3.6 gallons would be required. Since you cannot purchase partial gallons, 3.6 gallons would be rounded up to 4 gallons.

CALCULATIONS

GALLONS REQUIRED FOR TWO COATS_____

5. Calculate the cost of the paint you would use to apply two coats.

COST OF PAINT \$_____

6. Estimate the approximate total time that it would take you to paint your living room. Then, think of an hourly rate you would charge if you were the painting contractor. Using this rate, calculate the cost of labor.

Example: If you estimated that it would take you 10 total hours to paint your living room, and your hourly rate is \$20 per hour, then the cost of labor would be $10 \times \$20 = \200 .

ESTIMATED TOTAL HOURS OF LABOR_____

HOURLY LABOR RATE \$_____

COST OF LABOR \$_____

