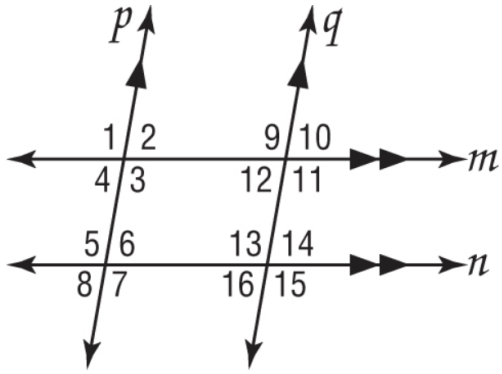
Math 2 Name _____

Parallel Lines and Angle Measure Date _____ Per ____

1.

In the figure, $m\angle 3 = 102$. Find the measure of each angle. Tell which postulate(s) or theorem(s) you used.



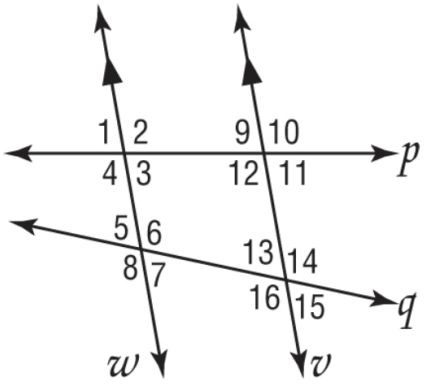
a. $\angle 5$ **b.** $\angle 6$

c. $\angle 11$ **d.** $\angle 7$

e. $\angle 15$ **f.** $\angle 14$

2.

In the figure, $m\angle 9 = 80$ and $m\angle 5 = 68$. Find the measure of each angle. Tell which postulate(s) or theorem(s) you used.



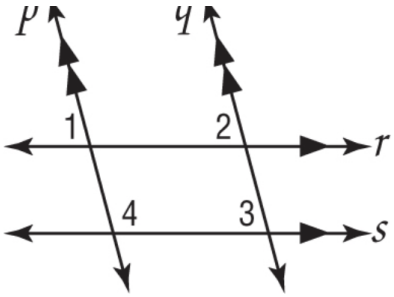
a. $\angle 12$ **b.** $\angle 1$

c. $\angle 4$ **d.** $\angle 3$

e. $\angle 7$ **f.** $\angle 16$

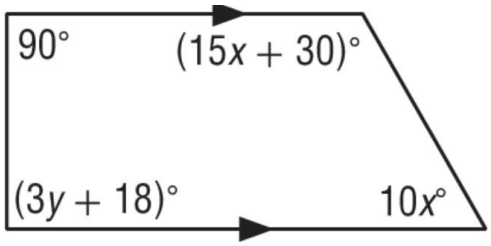
3.

If $m\angle 1 = 3x + 15$, $m\angle 2 = 4x - 5$, and $m\angle 3 = 5y$, find the value of x and y.



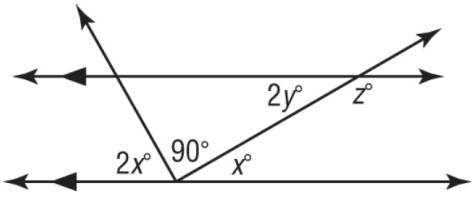
4.

Find the value of the variable(s) in each figure. Explain your reasoning.



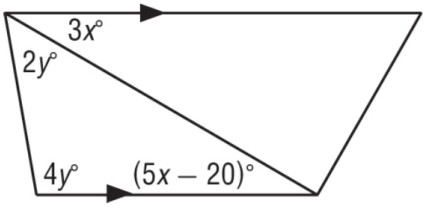
5.

Find the value of the variable(s) in each figure. Explain your reasoning.



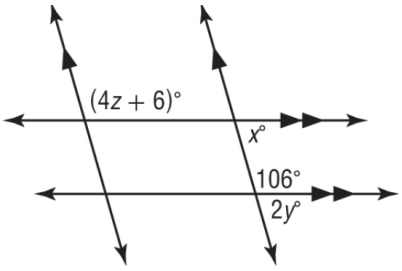
6.

Find the value of the variable(s) in each figure. Explain your reasoning.

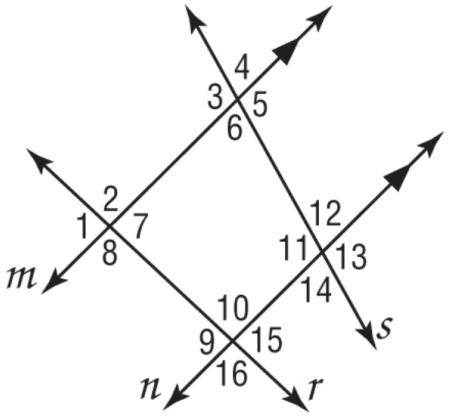


7._____

Find the value of the variable(s) in each figure. Explain your reasoning.



In the figure, $m\angle 2 = 92$ and $m\angle 12 = 74$. Find the measure of each angle. Tell which postulate(s) or theorem(s) you used.



1. $\angle 10$

2. $\angle 8$

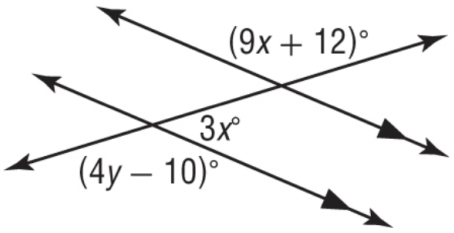
3. $\angle 9$

4. $\angle 5$

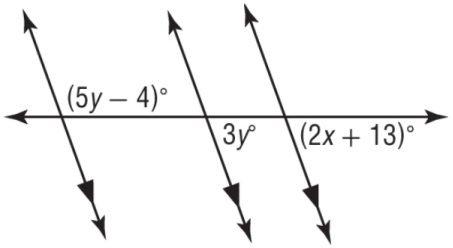
5. $\angle 11$

6. $\angle 13$

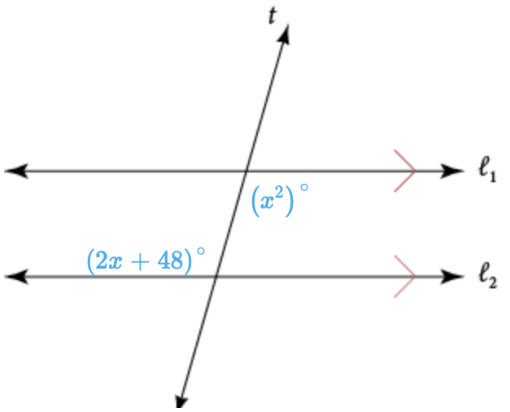
7. Find the value of the variable(s) in each figure. Explain your reasoning.



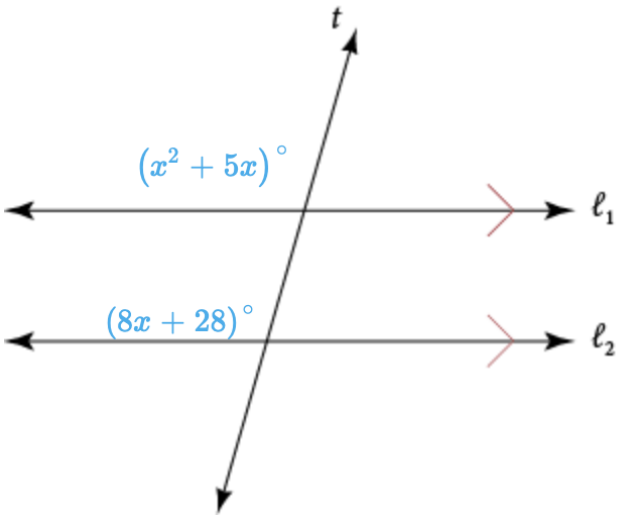
8. Find the value of the variable(s) in each figure. Explain your reasoning.



9. Find the value of x.



10. Find the value of x.



11. Find the value of x.