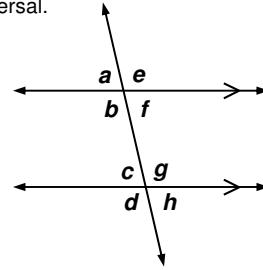


## Geometry and Algebra: Classwork

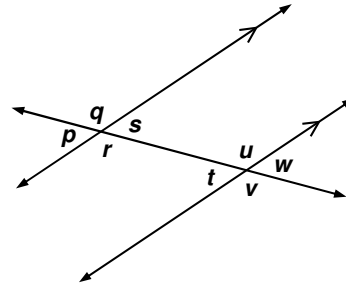
1. The diagram on the right shows two parallel lines intersected by a transversal.

- $\angle g$  and \_\_\_\_\_ are vertical angles.
- $\angle h$  and \_\_\_\_\_ are alternate exterior angles.
- $\angle b$  and \_\_\_\_\_ are corresponding angles.
- $\angle f$  and \_\_\_\_\_ are alternate interior angles.
- $\angle g$  and \_\_\_\_\_ are supplementary angles.
- Suppose  $m\angle f = 65^\circ$ . Find the measures of all the other angles.

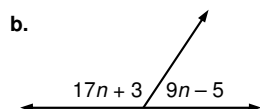
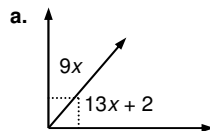


2. The diagram on the right shows two parallel lines intersected by a transversal.

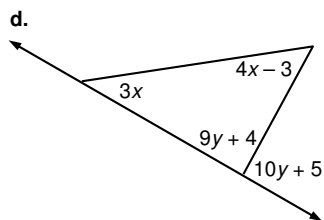
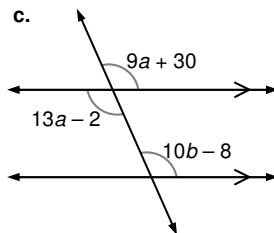
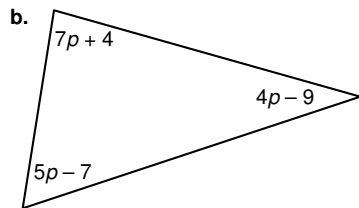
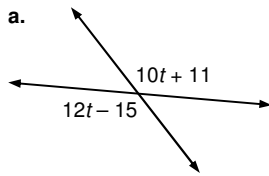
- $\angle p$  and  $\angle t$  are...
- $\angle r$  and  $\angle u$  are...
- $\angle t$  and  $\angle w$  are...
- $\angle q$  and  $\angle v$  are...
- $\angle q$  and  $\angle s$  are...
- Suppose  $m\angle r = 122^\circ$ . Find the measures of all the other angles.



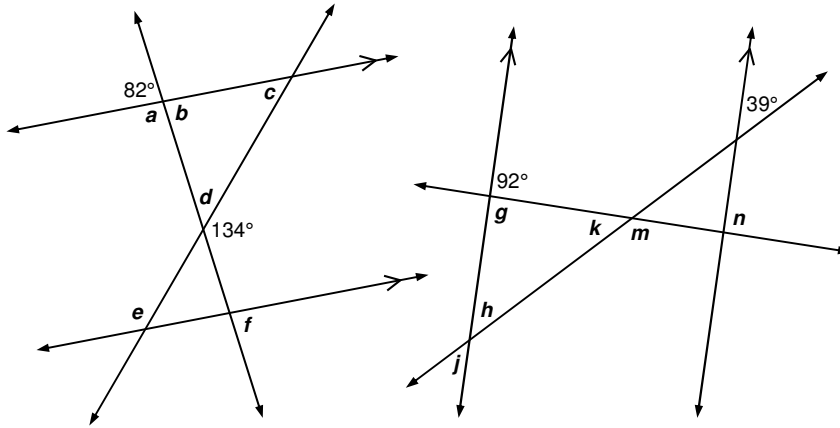
3. Write and solve an equation to find the value of each variable, then calculate the measure of each angle. Show your algebra work!



4. Write and solve an equation to find the value of each variable, then calculate the measure of each angle. Show your algebra work!



5. Find the measures of the unknown angles without using a protractor.



Possible Answers	
24°	82°
39°	82°
39°	85°
43°	88°
46°	92°
47°	98°
52°	114°
53°	126°
66°	127°
74°	128°

6. Calculate the unknown angle measures and side lengths. Show your work.

