

HW 7-1

Int 1

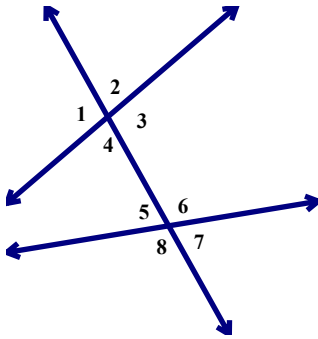
Parallel Lines & Transversals

Unit 7

Classify each pair of angles as *alternate interior*, *alternate exterior*, *corresponding*, *vertical*, *supplementary*, or *neither*.

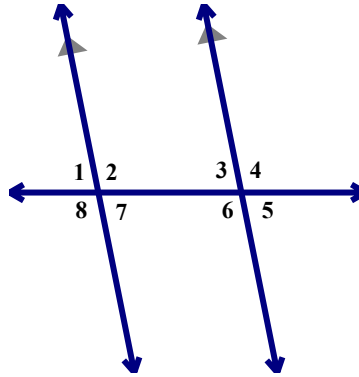
1. $\angle 1$ & $\angle 5$

2. $\angle 3$ & $\angle 5$



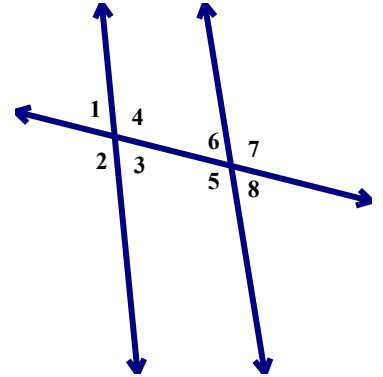
3. $\angle 2$ & $\angle 6$

4. $\angle 4$ & $\angle 8$



5. $\angle 2$ & $\angle 5$

6. $\angle 1$ & $\angle 8$

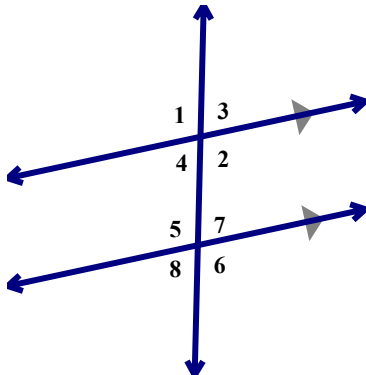


Classify each pair of angles as *alternate interior*, *alternate exterior*, *corresponding*, *vertical*, *supplementary*, or *neither*.

7. $\angle 5$ & $\angle 6$

8. $\angle 3$ & $\angle 8$

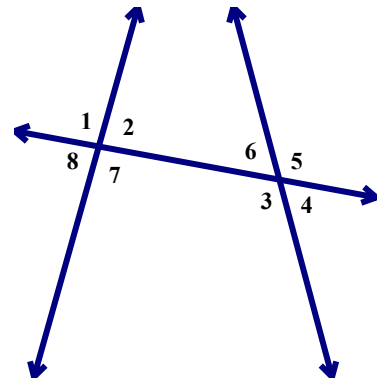
9. $\angle 2$ & $\angle 4$



10. $\angle 8$ & $\angle 3$

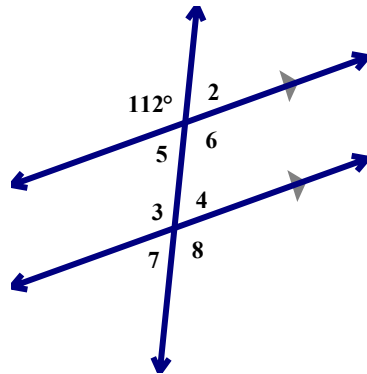
11. $\angle 4$ & $\angle 6$

12. $\angle 6$ & $\angle 3$



Find the indicated angle measure. (There may NOT be enough information to find the value.) Justify your answer by naming the angle relationship and angles used.

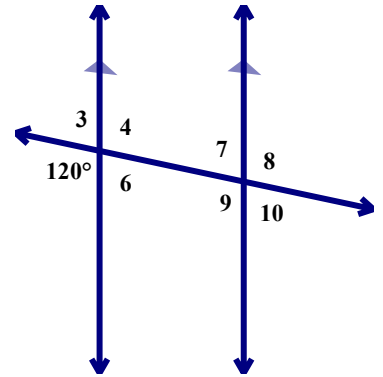
13. $m\angle 6$



14. $m\angle 3$

15. $m\angle 4$

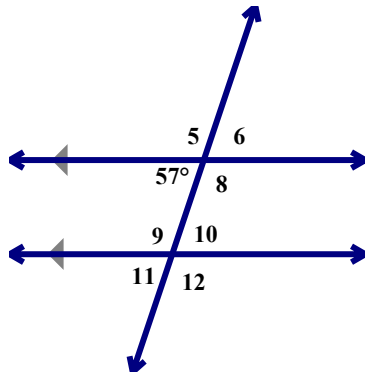
19. $m\angle 10$



20. $m\angle 8$

21. $m\angle 4$

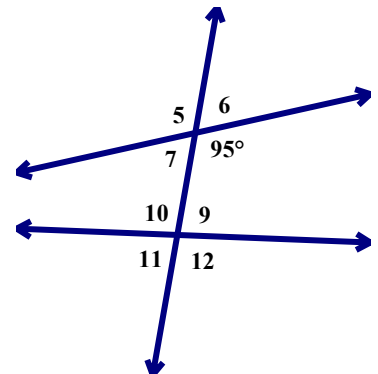
16. $m\angle 5$



17. $m\angle 6$

18. $m\angle 11$

22. $m\angle 7$



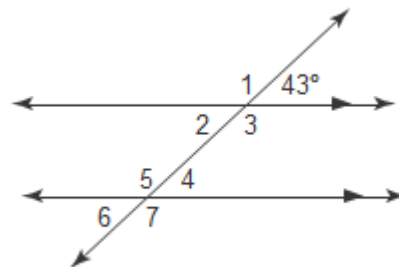
23. $m\angle 5$

24. $m\angle 12$

For problems 25 & 26, use the figure at the right.

25. List all the angles congruent to the given angle.

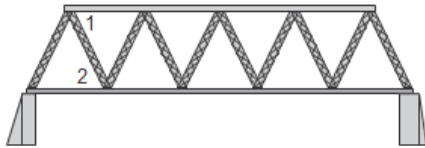
26. List all the angles congruent to $\angle 5$.



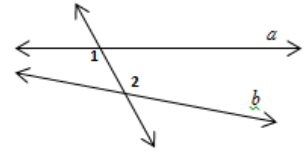
27. The symbol below is an equal sign with a slash through it. It is used to represent *not equal to* in math, as in $1 \neq 2$. If $m\angle 1 = 108^\circ$, classify the relationship between $\angle 1$ and $\angle 2$. Then find $m\angle 2$. Assume the equal sign consists of parallel lines.



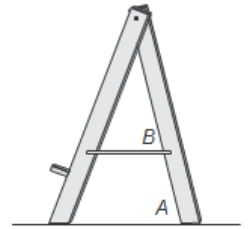
28. Arthur is designing a bridge for science class using parallel supports for the top and bottom beam. Find $m\angle 2$ if $m\angle 1 = 60^\circ$.



29. Line a and line b are not parallel. Are angle 1 & angle 2 congruent?

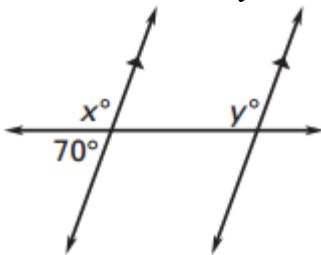


30. The drawing below shows the side view of a drawing easel. The brace is parallel to the ground. If $m\angle A$ is 82° , what is the measure of $\angle B$?

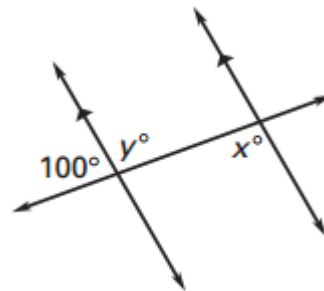


Find the values of x and y .

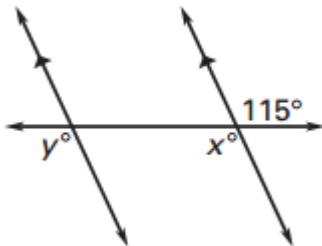
31.



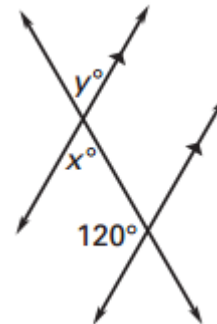
34.



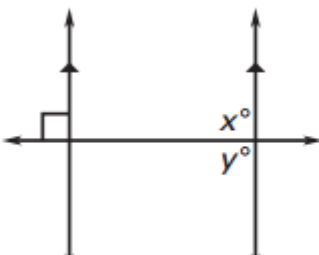
32.



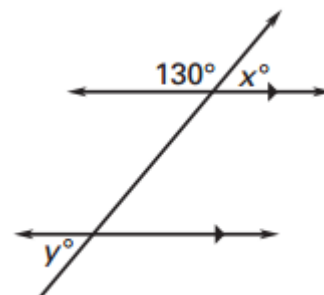
35.



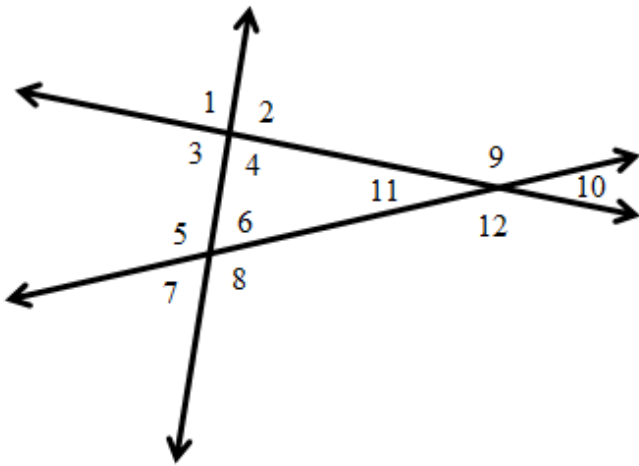
33.



36.



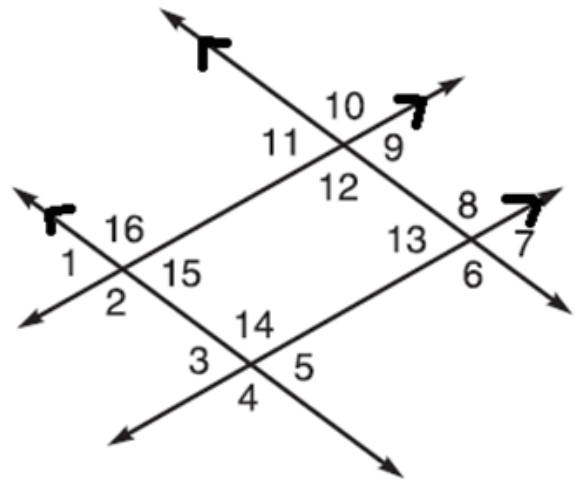
Classify each pair of angles as *alternate interior*, *alternate exterior*, *corresponding*, *vertical*, *supplementary*, or *neither*.



37. $\angle 4$ & $\angle 5$

38. $\angle 7$ & $\angle 9$

39. $\angle 11$ & $\angle 3$



40. $\angle 1$ & $\angle 5$

41. $\angle 9$ & $\angle 2$

42. $\angle 7$ & $\angle 13$