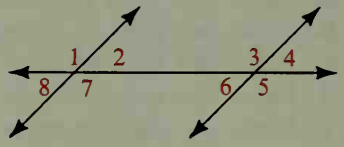
Written Exercises

Classify each pair of angles as alternate interior angles, same-side interior angles, or corresponding angles.

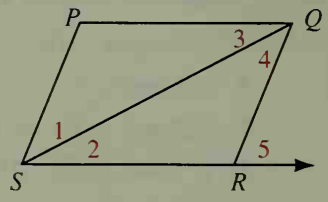
A

1. $\angle 2$ and $\angle 6$
2. $\angle 8$ and $\angle 6$
3. $\angle 2$ and $\angle 3$
4. $\angle 3$ and $\angle 7$
5. $\angle 5$ and $\angle 7$
6. $\angle 3$ and $\angle 1$



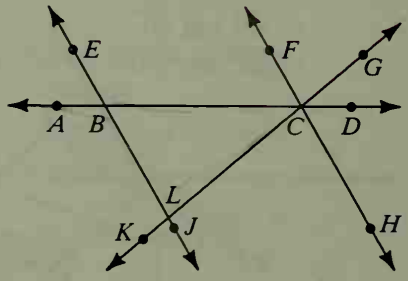
Name the two lines and the transversal that form each pair of angles.

7. $\angle 2$ and $\angle 3$
8. $\angle 1$ and $\angle 4$
9. $\angle P$ and $\angle PSR$
10. $\angle 5$ and $\angle PSR$
11. $\angle 5$ and $\angle PQR$



Classify each pair of angles as alternate interior, same-side interior, or corresponding angles.

12. $\angle EBA$ and $\angle FCB$
13. $\angle DCH$ and $\angle CBJ$
14. $\angle FCB$ and $\angle CBL$
15. $\angle FCL$ and $\angle BLC$
16. $\angle HCB$ and $\angle CBJ$
17. $\angle GCH$ and $\angle GLJ$



In Exercises 18–20 use two lines of notebook paper as parallel lines and draw any transversal. Use a protractor to measure.

18. Measure one pair of corresponding angles. Repeat the experiment with another transversal. What appears to be true?
19. Measure one pair of alternate interior angles. Repeat the experiment with another transversal. What appears to be true?
20. Measure one pair of same-side interior angles. Repeat the experiment with another transversal. What appears to be true?

B

21. Draw a large diagram showing three transversals intersecting two nonparallel lines l and n. Number three pairs of same-side interior angles *on the same sides of the transversals*, as shown in the diagram.
    a. Find $m\angle 1 + m\angle 2$.
    b. Find $m\angle 3 + m\angle 4$.
    c. Predict the value of $m\angle 5 + m\angle 6$. Then check your prediction by measuring.
    d. What do you conclude?