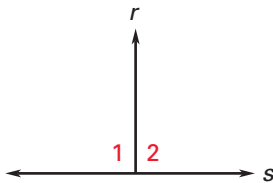


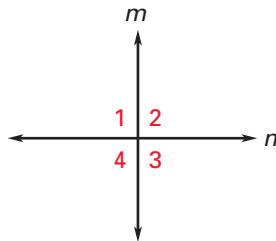


What can you conclude from the given information? State the reason for your conclusion.

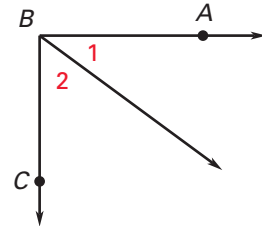
1. $\angle 1 \cong \angle 2$



2. $n \perp m$

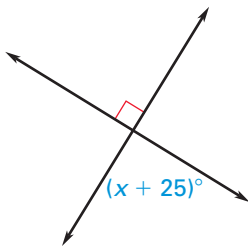


3. $\vec{BA} \perp \vec{BC}$

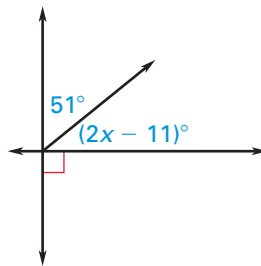


Find the value of x .

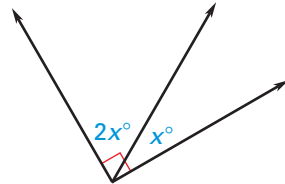
4.



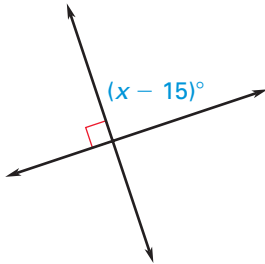
5.



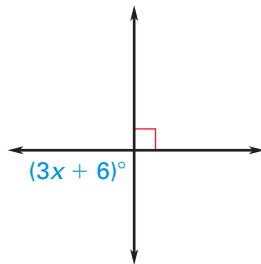
6.



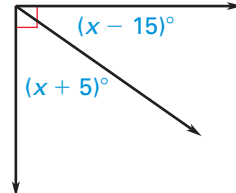
7.



8.



9.



Find the measure of the indicated angle.

10. $\angle 1$

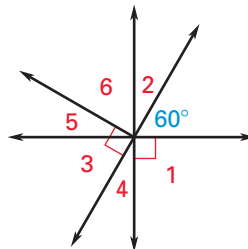
11. $\angle 2$

12. $\angle 3$

13. $\angle 4$

14. $\angle 5$

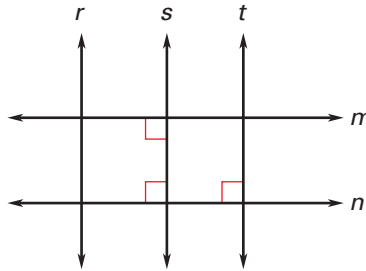
15. $\angle 6$



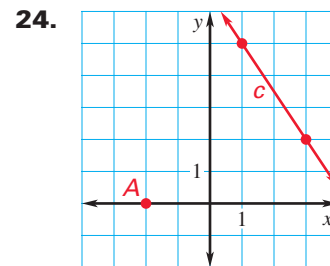
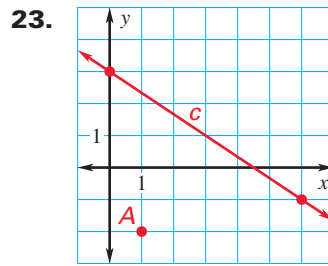
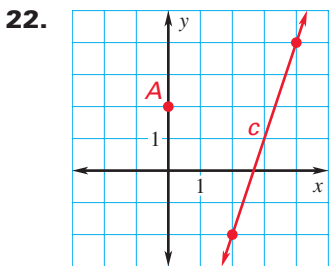
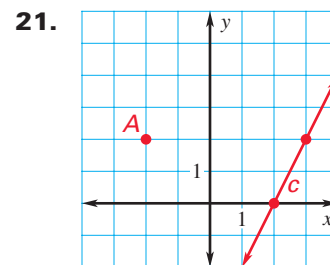
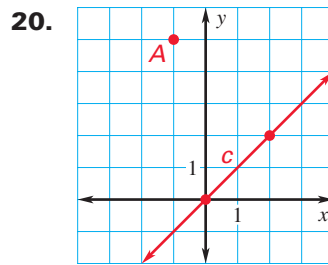
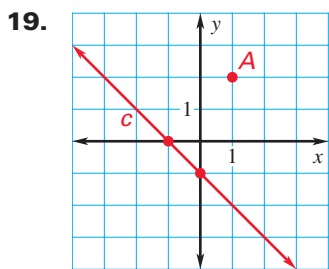
Exercise Set A *(continued)*

In Exercises 16–18, use the diagram.

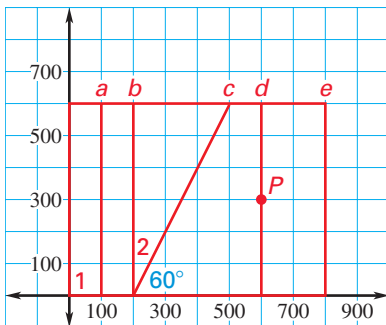
16. Is $r \parallel s$?
17. Is $m \parallel n$?
18. Is $s \parallel t$?



Find the distance from point A to line c . Round your answer to the nearest tenth.



25. **Maps** A map of a neighborhood is drawn on a graph where units are measured in feet.



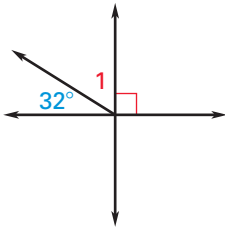
- a. Find $m\angle 1$.
- b. Find $m\angle 2$.
- c. Find the distance from point P to street a .
- d. Find the distance from point P to street c . Round your answer to the nearest foot.



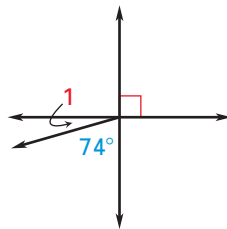
MM1G1b Determine the distance between a point and a line.

Find $m\angle 1$.

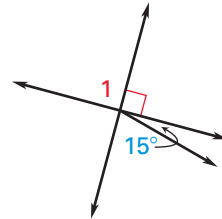
1.



2.



3.



Find the measure of the indicated angle.

4. $\angle 1$

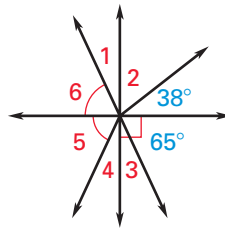
5. $\angle 2$

6. $\angle 3$

7. $\angle 4$

8. $\angle 5$

9. $\angle 6$

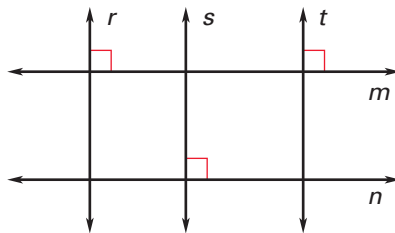


In Exercises 10–12, use the diagram.

10. Is $r \parallel s$?

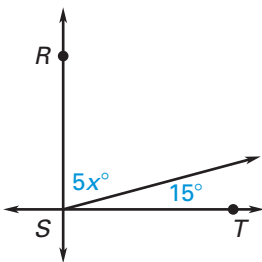
11. Is $m \parallel n$?

12. Is $r \parallel t$?

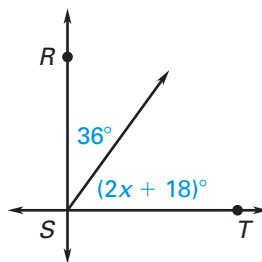


In the diagram, $\overleftrightarrow{RS} \perp \overleftrightarrow{ST}$. Find the value of x .

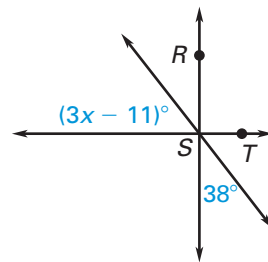
13.



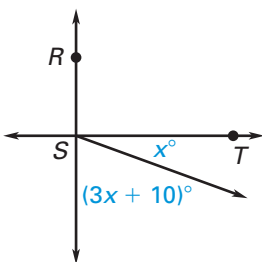
14.



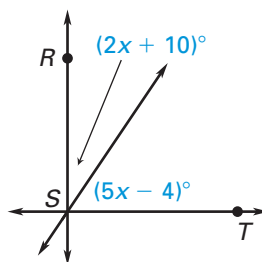
15.



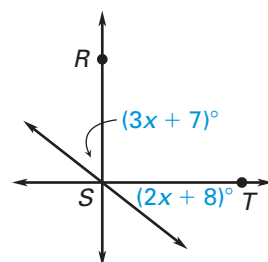
16.



17.

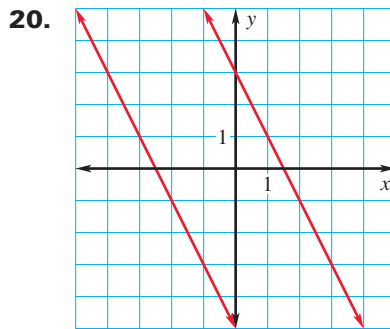
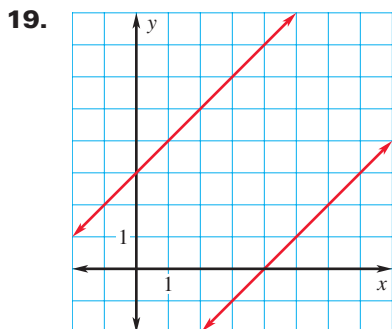


18.



Exercise Set B *(continued)*

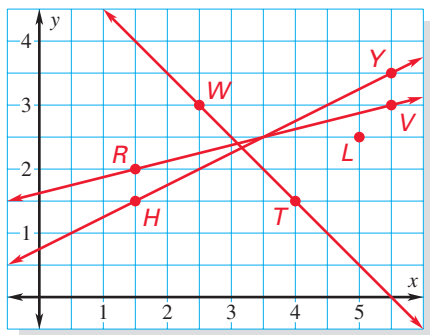
Find the distance between the two parallel lines. Round to the nearest tenth, if necessary.



21. **Finding Coordinates** Find the value of k such that the line containing point $(2, k)$ is perpendicular to the line $y = 2x - 3$ at point $(4, 5)$.

22. **Finding Distances** Find the distance between the parallel lines with the equations $y = \frac{2}{7}x + 4$ and $y = \frac{2}{7}x - 2$.

23. **Maps** A partial map of a wooded hiking area is drawn on a graph where units are measured in miles. Line HY represents the main highway through the area and line WT represents the hiking trail that hikers are supposed to follow between check points. Line RV represents a river that cannot be crossed on foot without a bridge. Point L represents a lost group of hikers.



- Find the distance from the lost group of hikers to the closest point where the hikers are able to reach the highway. Round your answer to the nearest tenth of a mile.
- Find the distance from the lost group of hikers to the closest point where the hikers are able to reach the hiking trail. Round your answer to the nearest tenth of a mile.
- Would it be shorter for the lost hikers to walk to the highway or to the hiking trail? *Explain.*