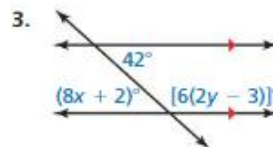
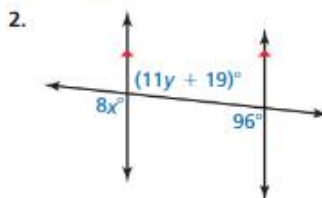
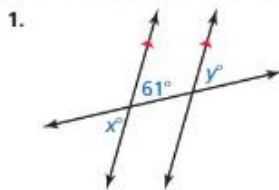


Find the values of x and y . State which theorem(s) you used.

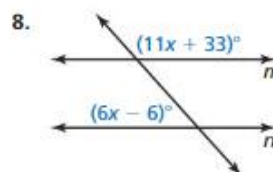
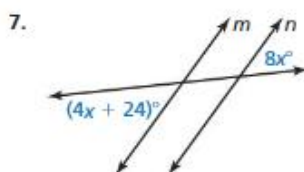
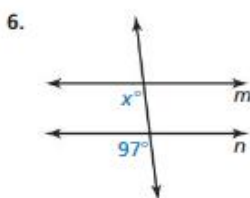


Find the distance from point A to the given line.

4. $A(3, 4)$, $y = -x$

5. $A(-3, 7)$, $y = \frac{1}{3}x - 2$

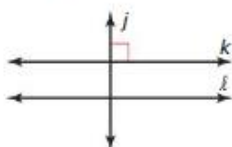
Find the value of x that makes $m \parallel n$.



Write an equation of the line that passes through the given point and is (a) parallel to and (b) perpendicular to the given line.

9. $(-5, 2)$, $y = 2x - 3$

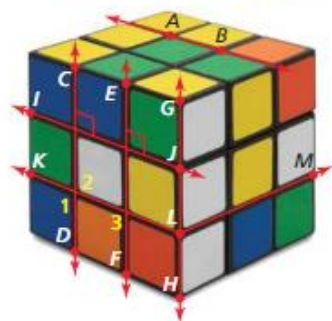
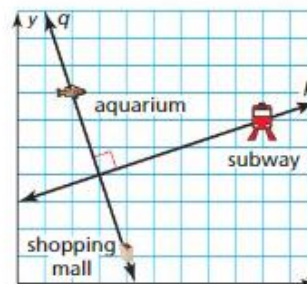
10. $(-1, -9)$, $y = -\frac{1}{3}x + 4$



11. A student says, "Because $j \perp k$, $j \perp l$." What missing information is the student assuming from the diagram? Which theorem is the student trying to use?

12. You and your family are visiting some attractions while on vacation. You and your mom visit the shopping mall while your dad and your sister visit the aquarium. You decide to meet at the intersection of lines q and p . Each unit in the coordinate plane corresponds to 50 yards.

- Find an equation of line q .
- Find an equation of line p .
- What are the coordinates of the meeting point?
- What is the distance from the meeting point to the subway?



13. Identify an example on the puzzle cube of each description. Explain your reasoning.

- a pair of skew lines
- a pair of perpendicular lines
- a pair of parallel lines
- a pair of congruent corresponding angles
- a pair of congruent alternate interior angles