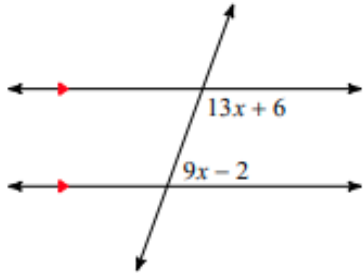


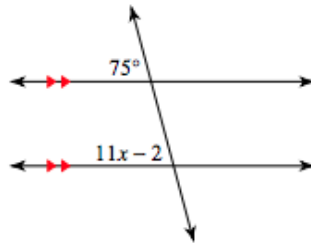
Parallel and Perpendicular Lines Review

1. Solve for x in each picture. Then plug back in to find each angle measure.

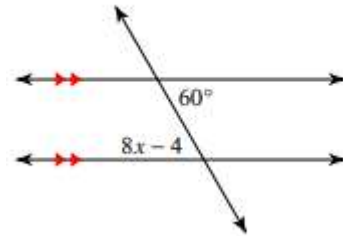
a.



b.



c.



2. Tell whether each statement is true or false. Then write the converse of the following statements, and state whether the converse is true or false.

a. If an angle has a measure less than 90 degrees, then it is acute.

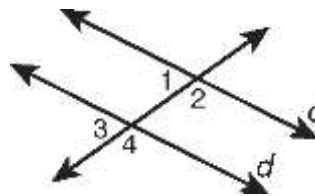
b. If a figure has four right angles, then it is a square.

3. What is the difference between the corresponding angles theorem and the converse of the corresponding angles theorem? Explain in your own words.

4. Use the given information to show that $c \parallel d$.

State which converse you used.

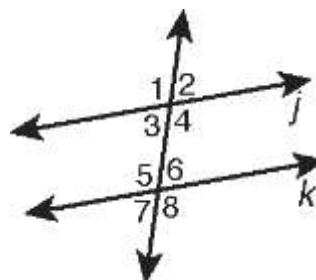
Given: $m\angle 1 = 2x^\circ$, $m\angle 3 = (3x - 31)^\circ$, $x = 31$



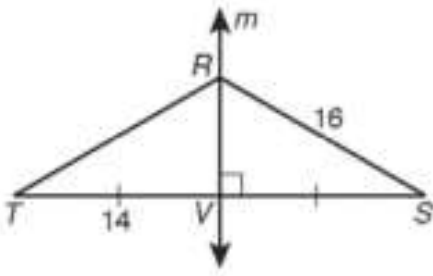
5. Use the given information to show that $j \parallel k$.

State which converse you used

Given: $m\angle 3 = 12x^\circ$, $m\angle 5 = 18x^\circ$, $x = 6$

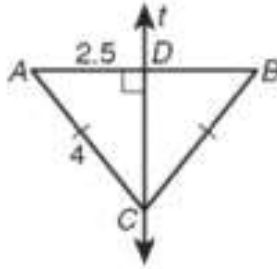


6.



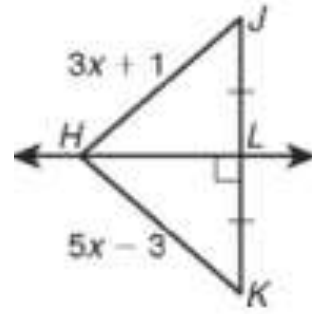
$$RT = \underline{\hspace{2cm}}$$

7.



$$AB = \underline{\hspace{2cm}}$$

8.



$$HJ = \underline{\hspace{2cm}}$$

9. For each slope given, identify what slope the parallel and perpendicular line would have.

slope	parallel	perpendicular
$\frac{2}{5}$		
$-\frac{9}{8}$		
8		
1		
0		
$\frac{1}{2}$		

Are the following lines parallel perpendicular or neither? How do you know?

10. $y = 2x + 10$, $y = -2x + 1$

11. $y = 5$, $x = 2$

12. $y = -4x + 1$, $y = \frac{1}{4}x + 2$

13. $y = 10x$, $y = 4 + 10x$

Write the equation of a line that is parallel AND a line that is perpendicular to a given line through the given point.

14. $y = 2x + 9$, $(-1, 4)$

15. $y = -\frac{1}{4}x - 5$, $(8, 2)$