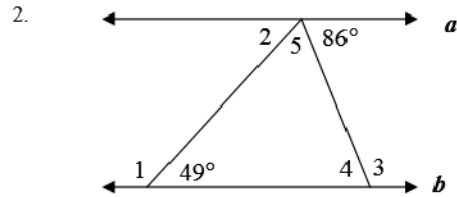
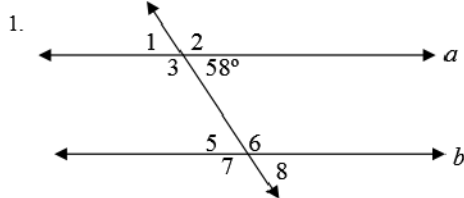


1-2. Find the missing angles for each problem, given that lines a and b are parallel.



3. Write the point-slope form of the equation of the line passing through $(3, -6)$ and perpendicular to the line $3x + 2y = 6$.

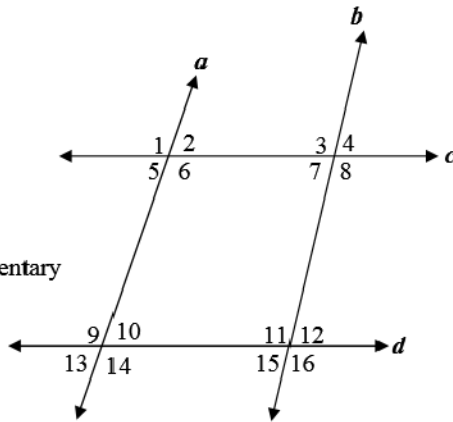
4. Write the slope-intercept form of the equation of a line parallel to $y = -\frac{2}{3}x + 12$ that has a y-intercept of -13 .

For problems 5-7. Determine which lines, if any, are parallel given the listed information. Explain your answer. Consider each problem independently.

5. $m\angle 4 = m\angle 16$

6. $\angle 10$ and $\angle 11$ are supplementary

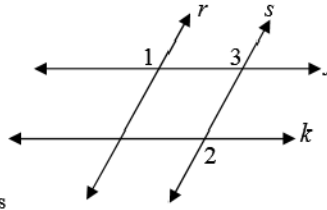
7. $m\angle 9 = m\angle 6$



Complete the following proofs.

8. Given: $r \parallel s$ and $m\angle 1 = m\angle 2$

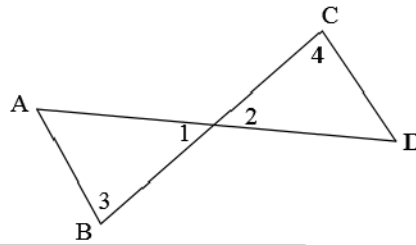
Prove: $j \parallel k$



Statements	Reasons
1. $r \parallel s$ and $m\angle 1 = m\angle 2$	1.
2. $m\angle 1 = m\angle 3$	2.
3. $m\angle 2 = m\angle 3$	3.
4. $j \parallel k$	4.

9. Given: $AB \parallel CD$ and $m\angle 1 = m\angle 3$

Prove: $m\angle 2 = m\angle 4$



Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

Determine whether the following lines are perpendicular, parallel, or neither. **Show work and explain how you know.**

$y = 4x + 6$

$3x - 2y = 4$

10. $y = \frac{1}{4}x - 2$

11. $y = -\frac{2}{3}x + 8$

12-13. Write the *perpendicular bisector* in **both** slope-intercept **and** point-slope form.

12. $(2, 4)$ $(4, 8)$

13. $(6, 2)$ $(12, 6)$