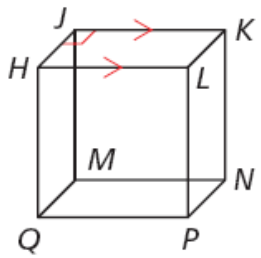
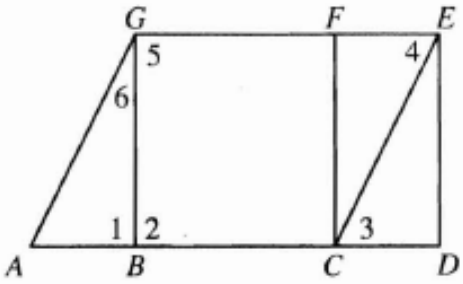
CC Geometry HW #_____ Name_____
Chapter 3 Review
Worksheet 3R Date_____Per._____Col._____



Identify each of the following.

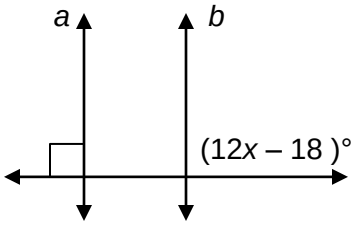
1. a pair of parallel segments
2. a pair of perpendicular segments
3. a pair of skew segments

Use the given information to name segments that must be parallel. Write out a reason to support your answer.

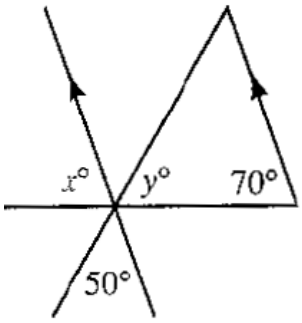


4. $\angle A \cong \angle 3$
5. $\angle 4 \cong \angle 3$
6. $\overline{GB} \perp \overline{BC}$, $\overline{GB} \parallel \overline{FC}$
7. $m\angle 2 + m\angle 5 = 180$
8. $\overline{GB} \perp \overline{AD}$, $\overline{ED} \perp \overline{AD}$

9. Find x so that $a \parallel b$.

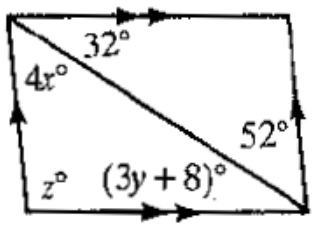


10. Find x and y.

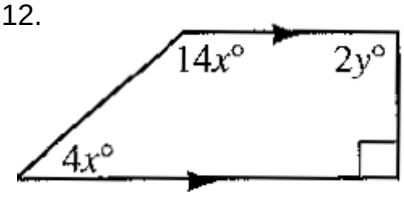


11-12: Find x, y, and z.

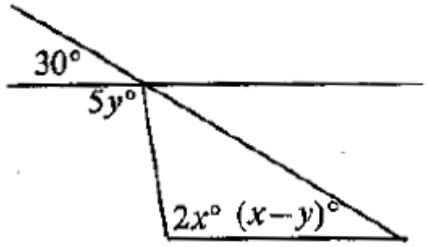
11.



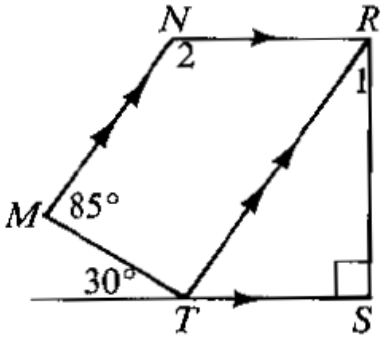
12.



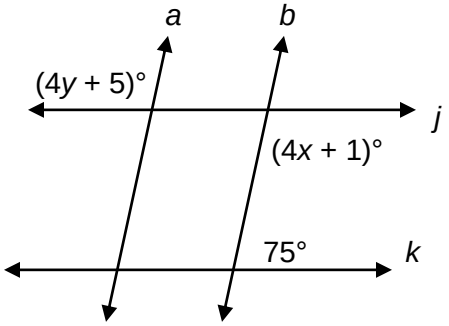
13: Find x and y.



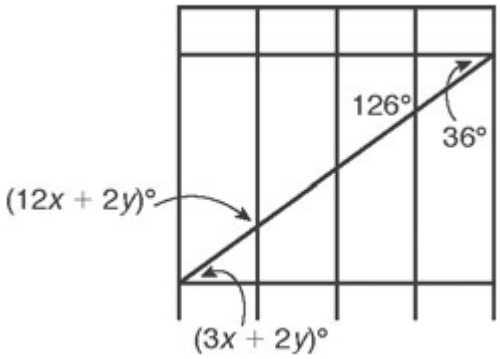
14. Find m∠1 and m∠2.



15. Find x and y, if $a \parallel b$ and $j \parallel k$.



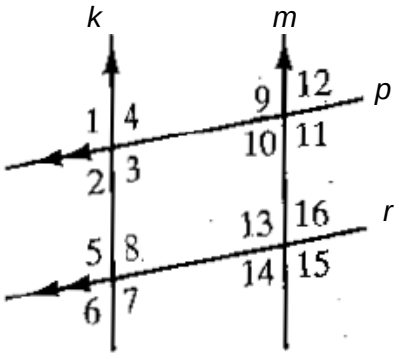
16. In the diagram of the gate, the horizontal bars are parallel and the vertical bars are parallel. Find x and y.



17. Given: $k \parallel m$, $p \parallel r$

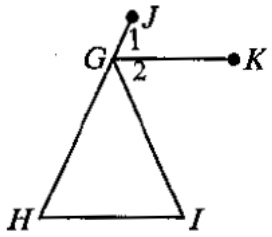
Prove: m∠4 + m∠15 = 180

STATEMENTS	REASONS
1. $k \parallel m$	1.
2. m∠4 + m∠9 = 180	2.
3. $p \parallel r$	3.
4. m∠9 = m∠15	4.
5. m∠4 + m∠15 = 180	5.



18. Given: $\overline{GK} \parallel \overline{HI}$, $\overrightarrow{GK}$ bisects $\angle JGI$

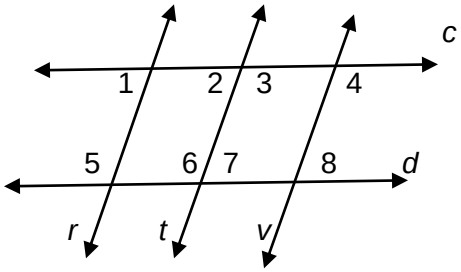
Prove: $\angle H \cong \angle 2$



STATEMENTS	REASONS

19. Given: $r \parallel t$, $c \parallel d$, $\angle 1 \cong \angle 8$

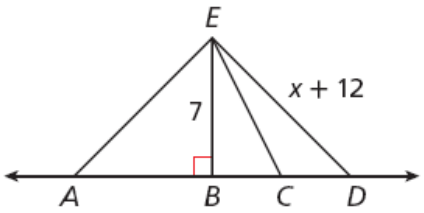
Prove: $t \parallel v$



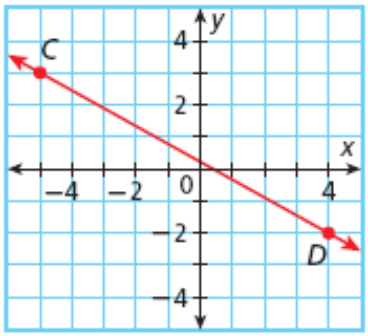
STATEMENTS	REASONS

20. Name the shortest segment from point E to $\overleftrightarrow{AB}$.

21. Write and solve an inequality to find the value of x.

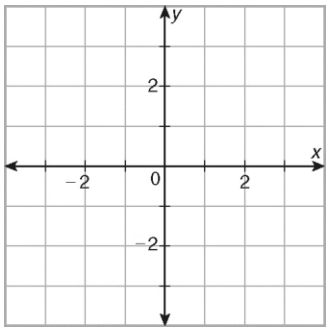


22. Find the slope of the line.



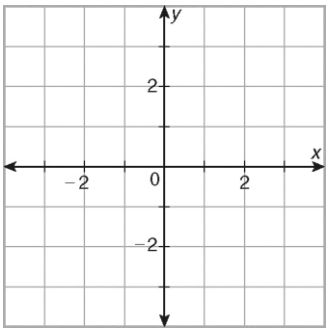
23. Graph line *j*: $y = 4x - 3$

and line *k*: $y - 3 = -\frac{2}{5}(x + 2)$



24. Graph line *m:* $y = -1$

and line *p*: $x = 4$



25. Show work and explain why the lines $y = 2x - 7$ and $4x - 2y = 14$ coincide.

Use point-slope form to write the equation of each line. Give the final equation in slope-intercept form.

26. the line with slope -4 that passes through the point (2, -7)

27. the line parallel to $y = \frac{2}{5}x - 8$ that passes through (-10, 3)

Use slope-intercept form to write the equation of each line.

28. the line through the points (4, 7) and (-2, -5)

29. the line perpendicular to $y = -\frac{2}{3}x + 6$ with x-intercept -8