

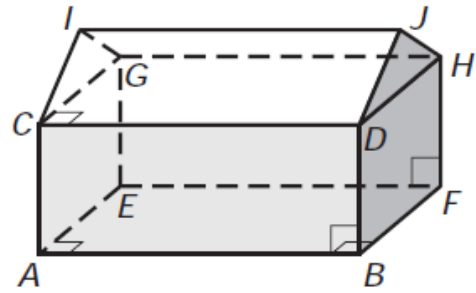
Geometry Chapter 3 Review for Retest

Name: _____

Show ALL work for full credit!

Date: _____ Period: _____

Using the diagram, answer questions 1-5 :
(there may be more than one answer).



1. Name a line segment parallel to \overline{DH} : _____

Complete each blank with *parallel*, *perpendicular* or *skew*

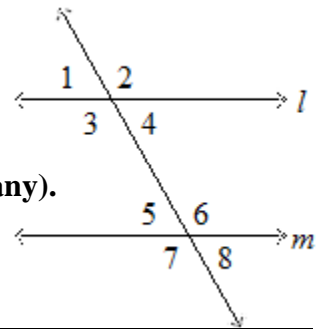
2. \overline{AE} and \overline{DH} are _____.

3. \overline{BF} and \overline{DB} are _____.

4. \overline{GE} and \overline{DB} are _____.

5. Name a plane parallel to plane HFG: _____

On problems 6-13, given $l \parallel m$, name the special angle pair relationship (if any).



6. $\angle 1$ and $\angle 5$ are _____

7. $\angle 1$ and $\angle 8$ are _____

9. $\angle 3$ and $\angle 6$ are _____

11. $\angle 2$ and $\angle 4$ are _____

8. $\angle 4$ and $\angle 6$ are _____

10. $\angle 5$ and $\angle 8$ are _____

12. $\angle 2$ and $\angle 5$ are _____

13. Using the diagram from questions 6-12, determine the angle measurements if $m\angle 1 = 74^\circ$.

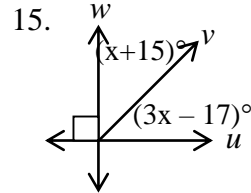
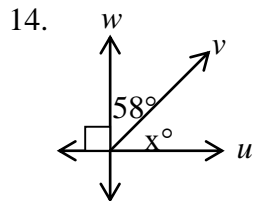
$m\angle 3 =$ _____

$m\angle 4 =$ _____

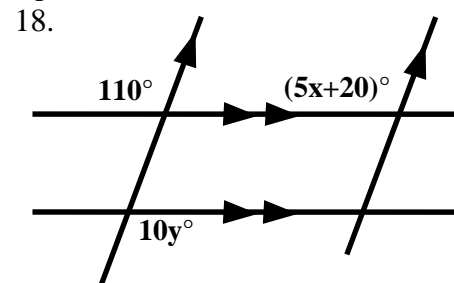
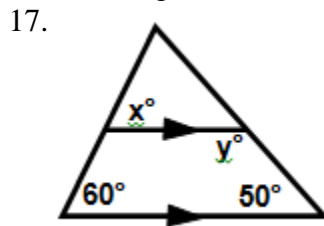
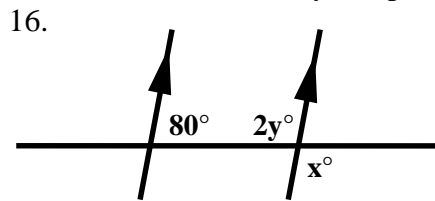
$m\angle 6 =$ _____

$m\angle 8 =$ _____

Find the value of x. Explain the steps used – using proper vocabulary to describe angles.

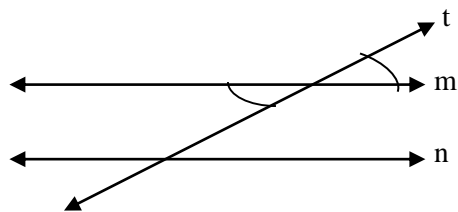


Find the value of x and y. Explain your reasoning with a theorem or postulate, and show work.

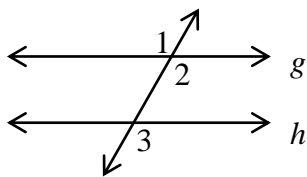


19. Is it possible to prove $m \parallel n$?
Explain your answer using a postulate or theorem.

YES or NO? Because:

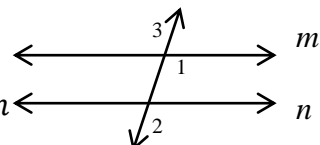


20. Given: $h \parallel g$
 Prove: $\angle 1 \cong \angle 3$



Prove the Alternate Exterior Angles Theorem.

21. Given: $\angle 1 \cong \angle 2$
 Prove: $m \parallel n$

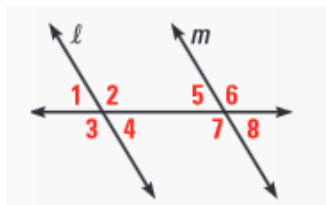


Prove the Corresponding Angles Converse.

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

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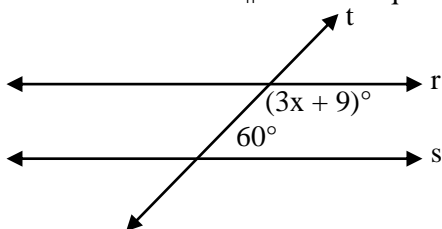
22. Complete the proof.
 Given: $\angle 1$ and $\angle 7$ are supplementary
 Prove: $l \parallel m$



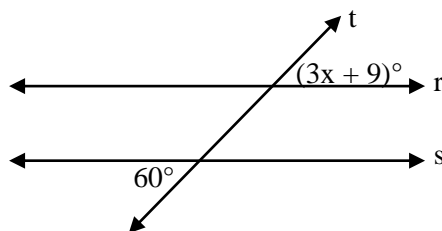
Statements	Reasons
1. $\angle 1$ and $\angle 7$ are supplementary	1. Given
2. $\angle 5$ and $\angle 7$ are a linear pair	2.
3. $\angle 5$ and $\angle 7$ are supplementary	3.
4.	4. Congruent Supplements Theorem
5.	5.

Using Properties of Parallel Lines – Support your answers with a postulate or theorem.

23. Find x so that $r \parallel s$. Show equation.



24. Find x so that $r \parallel s$. Show equation.

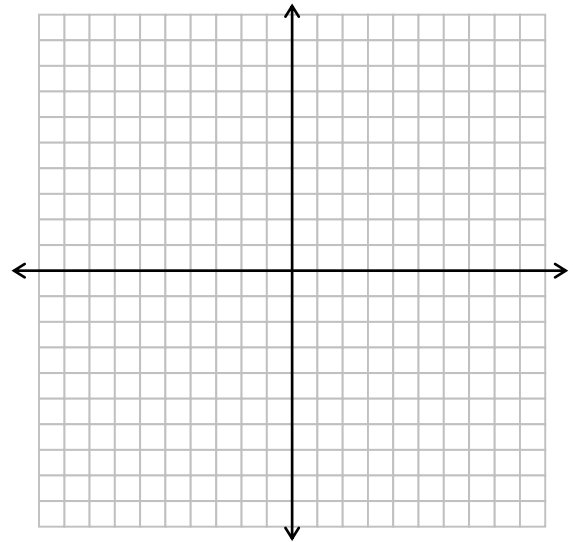


25. **Graph lines on the grid shown.**
Label each line with the question letter.

a. $y = -\frac{3}{4}x + 2$

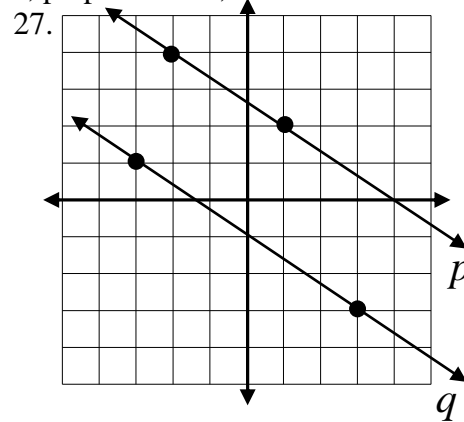
b. $y = 2x + 1$

c. $2x - 3y = -12$



Determine if the lines described or shown are parallel, perpendicular, or neither. Show your slopes.

26. Line 1: A (5, -2) and B(-3, 8)
 Line 2: W(-4, 1) and H(6, -7)



Equations of Parallel Lines

30. Write the equation of the line parallel to $y = \frac{3}{4}x - 6$, passing through the point (-2, 4).

31. Write the equation of the line passing through (6, -8) that is perpendicular to the line $y = -\frac{2}{3}x + 9$.

Distance from a point to a line

32. Find the distance from A(7, 6) to the line $y = \frac{1}{5}x - \frac{3}{5}$