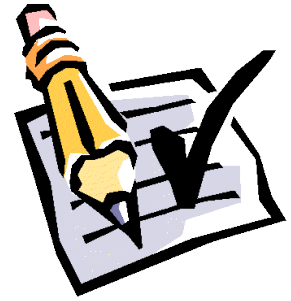


Name \_\_\_\_\_ Date \_\_\_\_\_ Hour \_\_\_\_\_

## 7<sup>th</sup> Grade Advanced – Unit 1 Assessment - Study Guide

The Unit 1 Assessment will cover the following concepts:

- 1 - Solving Equations
- 2- Rewriting Equations
- 3 - Inequalities
- 4 - Solving Inequalities
- 5 - Angles
- 6 - Classifying and Constructing Triangles/Quadrilaterals



1.  $4 + d = 10.5$

5.  $\frac{x}{6} = -3$

2.  $9(8f - 5) + 13 = 12f - 2$

6.  $9k + 1 = 3(3k - 1)$

3.  $-3\pi + r = -8\pi$

7.  $y - \frac{2}{3} = \frac{1}{8}$

4.  $\frac{1}{7}(14r + 28) = 2(r + 2)$

8.  $-3(2g - 3) = -6g + 9$

*For each of the equations below, solve for x.*

9.  $3t + x = 5$

11.  $p = 2b + 2x$

10.  $\frac{1}{3}x + 4 = 3r$

12.  $3w - 2x = 8$

Solve and graph each of the inequalities below.

13.  $2x - 3 \geq 1$



Possible Solution

14.  $-13 > -5r + 2$



Possible Solution

15.  $2(b - 4) \leq -6$



Possible Solution

16.  $4c - 7c + 2 < -2 + c$



Possible Solution

17.  $-3k \geq -36$



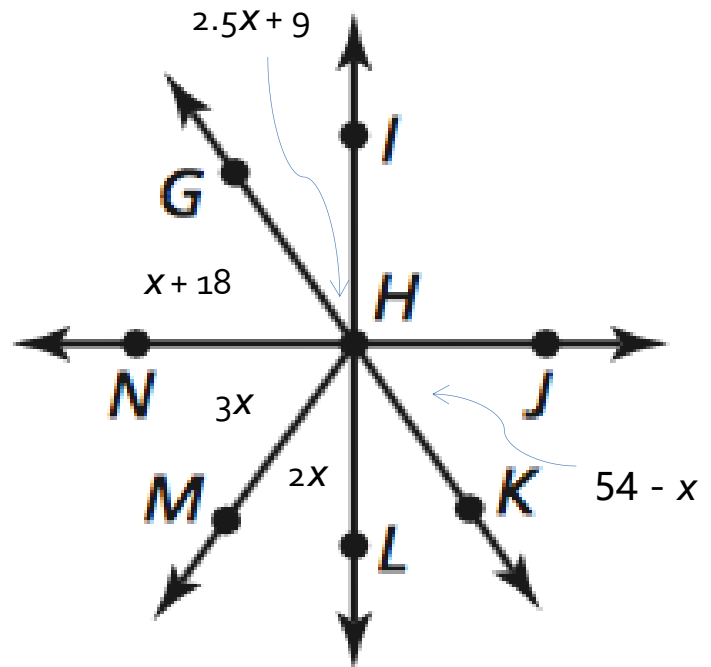
Possible Solution

Use the diagram below to answer the following questions.

18. Name two angles that are adjacent to  $\angle IHJ$ .

19.  $\angle IHN$  is a right angle.  
Find the measure of  $\angle GHN$ .

20. Find the measure of  $\angle MHL$ .



21. Find the measure of  $\angle KHJ$ .

22.  $\angle ABC$  and  $\angle CBD$  are a supplementary linear pair and share a vertex at point B.

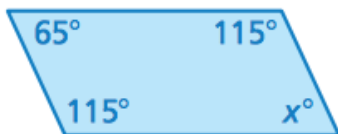
$$\angle ABC = 2x$$

$$\angle CBD = 5x + 40$$

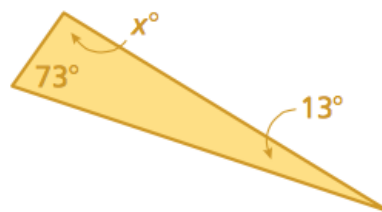
Draw a labeled diagram that fits this scenario. Then, find the value of  $x$ . (Show your work.)

Classify each of the following polygons and find the missing angle(s).

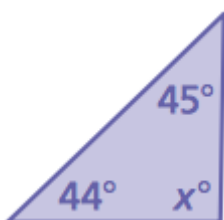
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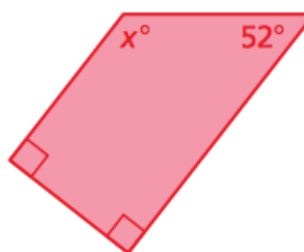
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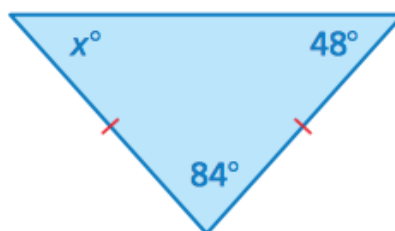
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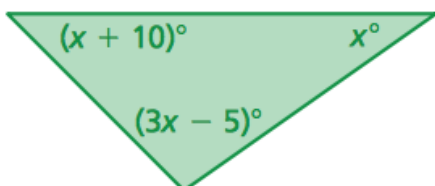
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