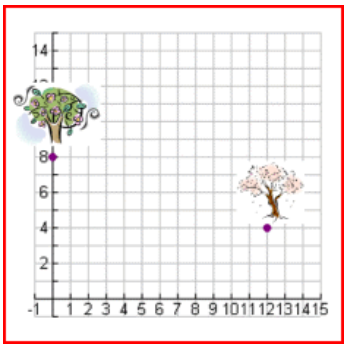
Review: 1ST NINE WEEKS

NAME: _____ DATE:_____ PERIOD:_____

Mark planted two trees on a planning grid at coordinates (0, 8) and (12, 4). He wants to plant a row of hedges such that any hedge is the same distance from each of the two trees, which lies on the perpendicular bisector.



1._____ 1. Determine the midpoint of the line segment connecting the two trees.

2._____ 2. Find the distance between the two trees.

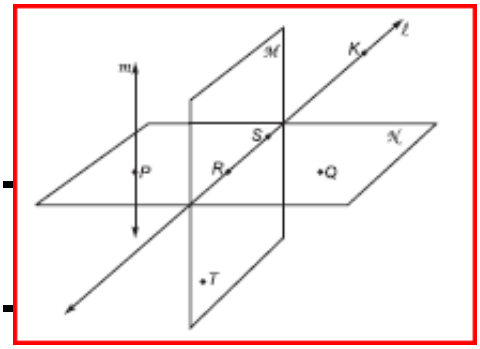
3._____ 3. Determine the slope of the line connecting the trees.

4._____ 4. Write an equation for the line segment connecting the two trees.

5._____ 5. Determine the slope of the line of the hedges, which would be perpendicular to #3.

6._____ 6. Write an equation for the line segment containing the hedges.

Use the diagram below to answer # 7-9.



7._____ 7. Name the intersection of plane M and N.

8._____ 8. Name a point *not* on plane M.

9._____ 9. Name 4 noncoplanar points.

Consider the conditional statement for # 10-12.
***If the light is red, then I stop*.**

10. Write the inverse.

11. Write the converse.

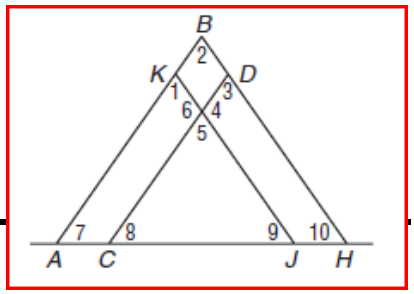
12. Write the contrapositve.

13. What conclusion follows from the two statements given below?
If Dusty is in Fredericksburg, then Dusty is in Virginia.
If Dusty is at the George Washington Masonic Museum, then Dusty is in Fredericksburg.

14. What statement follows from the two statements given below?
All guinea pigs have four legs.
Squirt is a guinea pig.

15. Matt made the conjecture that the sum of two numbers is always greater than either number. Find a counterexample for his conjecture.

Use the following information for # 16-18.
In the figure, $\overline{AB}$ is parallel to $\overline{CD}$, and $\overline{HB}$ is parallel to $\overline{JK}$.

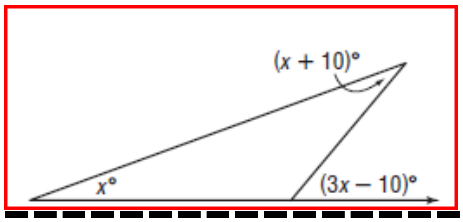


16._____ 16. Which angle is congruent to $\angle 9$?

17._____ 17. What is $m\angle 1$ if $\angle 1 = 3x + 4$ and $\angle 6 = 2x - 24$?

18.___ _____ 18. What is $m\angle 7$ if $m\angle 7 = \frac{3}{2}x - 39$ and $m\angle 8 = x - 15$

19._____ 19. What is the value of x?



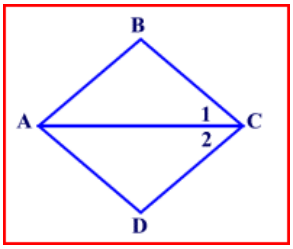
20._____ 20. If the slope of a line containing (4, 3) and (x, 5) is $\frac{3}{5}$, what is the value of x?

Sketch the following description.

21._____ 21. An architect checked an assistant's floor plans for a house and found some errors. She left a note asking the assistant to draw $\angle B$ supplementary to $\angle A$, and $\angle C$ complementary to $\angle B$.

22._____ 22. Two angles are supplementary. The measure of one of the angles is 8 times the measure of the other. What is the measure of the *larger* angle?

23._____ 23. Fill in each missing statement or reason in the following proof.



Given: $\overline{BC} \cong \overline{DC}$; $\overline{AC}$ bisects $\angle BCD$

Prove: $\Delta ABC \cong \Delta ADC$

Statements	Reasons
$\overline{BC} \cong \overline{DC}$; $\overline{AC}$ bisects $\angle BCD$	
	Definition of _____
$\overline{AC} \cong \overline{AC}$	
$\Delta ABC \cong \Delta ADC$	

24._____ 24. Solve the equation and fill in match each statement with a reason in the box

Given: 4(3x + 5) = 12 - 2x

Prove: x = $\frac{-4}{7}$

Simplify
Given
Division Property of Equality
Subtraction Property of Equality
Simplify
Simplify
Addition Property of Equality
Distributive Property

Statements	Reasons
4(3x + 5) = 12 - 2x	