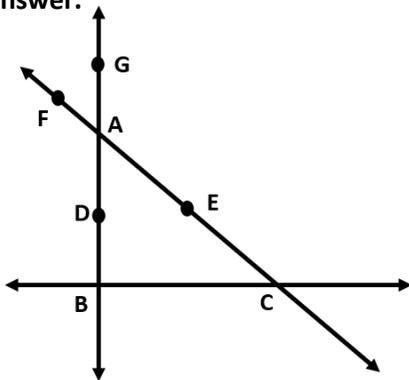


Directions: Match the vocabulary term to the definition or symbolic form.

- | | |
|-------------------------------|--|
| _____ 1) Line | a) Two angles whose sum is 90° |
| _____ 2) Line Segment | b) \overleftrightarrow{XY} |
| _____ 3) Ray | c) $m\angle A + m\angle B = 180^\circ$ |
| _____ 4) Straight Angle | d) Two angles whose measures is the same |
| _____ 5) Supplementary Angles | e) An angle whose measure is 180° |
| _____ 6) Linear Pair | f) \overrightarrow{MN} |
| _____ 7) Complementary Angles | g) Part of a ray or line with two endpoints |
| _____ 8) Congruent Angles | h) Two angles whose nonadjacent sides form opposite rays |

Directions: Use the picture below to determine if you are allowed to assume each statement. Write a YES or a NO as your answer.



- _____ 9) Points D, A, & G are collinear
- _____ 10) $\angle DAE \cong \angle GAF$
- _____ 11) $\triangle ABC$ is a right triangle
- _____ 12) $\angle FAE$ is a straight angle

Directions: Complete each algebraic two-column proof.

13) Given: $6 = \frac{2x-6}{3}$

Prove: $x = 12$

Statements	Reasons
1) $6 = \frac{2x-6}{3}$	1)
2) $18 = 2x - 6$	2)
3) $24 = 2x$	3)
4) $12 = x$	4)
5) $x = 12$	5)

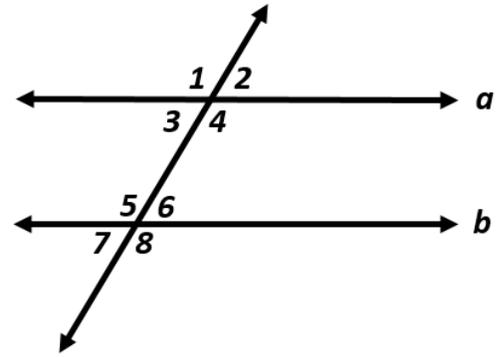
14) Given: $y = mx + b$

Prove: $m = \frac{y - b}{x}$

Statements	Reasons

Directions: In the figure, $a \parallel b$. Answer each question.

15) If $m\angle 1 = (2x + 25)^\circ$ & $m\angle 5 = (3x - 37)^\circ$, what is $m\angle 3$?



16) If $m\angle 6 = (6x^2)^\circ$ and $m\angle 4 = (14x^2)^\circ$, what is $m\angle 4$?

17) If $m\angle 4 = (-x + 60)^\circ$ & $m\angle 5 = (x^2 + x - 20)^\circ$, what is $m\angle 6$?

18) What is the angle relationship between $\angle 1$ & $\angle 2$?

19) What is the angle relationship between $\angle 7$ & $\angle 2$?

20) What is the angle relationship between $\angle 5$ & $\angle 8$?

21) What is the angle relationship between $\angle 3$ & $\angle 5$?

Directions: Use the conditional statement "If two angles are right angles, then the angles are congruent" to find the converse, inverse, and contrapositive. Then find the truth value of each statement and write a biconditional statement if appropriate.

22) T F Converse:

23) T F Inverse:

24) T F Contrapositive:

25) Biconditional:

Directions: Use the Law of Syllogism or the Law of Detachment to make a valid argument. State the law you will use.

26) Conditional: If it is warm outside, then we will go to the beach.
Statement: It is warm outside.

27) Conditional: If you do your homework, then you will be better prepared for quizzes and tests. If you are better prepared for quizzes and tests, then you will know more information on these assessments.