

GEOMO

Topic: Justifying geometric statements with a definition, a postulate, or a theorem.

Grade Level: Geometry

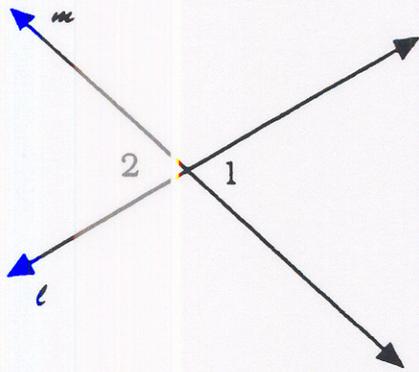
Number of players: 3 – 5

Materials needed: One set of “GEOMO” cards

Procedure:

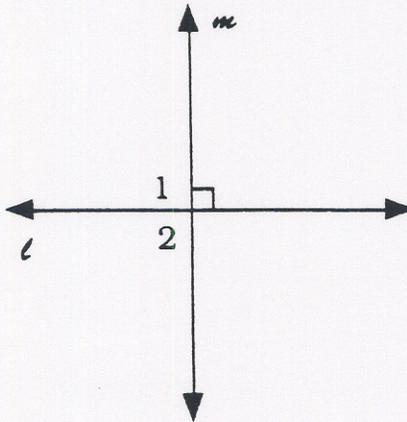
- Separate the cards into two sets. One set contains the geometric figures and conditions; the other set contains definitions, postulates, or theorems.
- Place the cards with geometric figures in an array face down on the table. Shuffle the other set and deal it out one card at a time to each player until all the cards are dealt.
- Players take turns turning over a card in the array to see if it matches one in their hand. If the card matches a card in his/her hand, the player picks up the card from the array and makes a book. The player takes another turn. The pairs are placed face up in front of the player who picked them up. If the card does not match one in the player's hand, it is turned face down again and play passes to the next player.
- Play passes around the group until all the geometric figures are picked up.
- If a player makes an error, he/she loses that turn and must replace the figure in the array.

$$\angle 1 \cong \angle 2$$



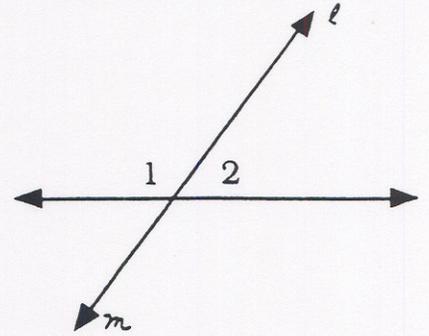
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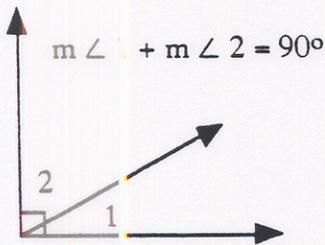
$$\angle 1 \cong \angle 2$$

$\angle 1$ and $\angle 2$ form a linear pair.



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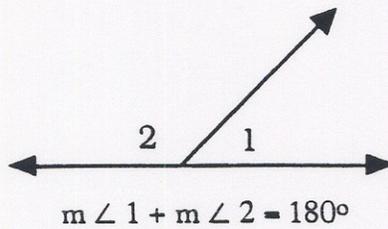
$\angle 1$ and $\angle 2$ are complimentary.



$$m\angle 1 + m\angle 2 = 90^\circ$$

$\angle 1$ and $\angle 2$ are complimentary.

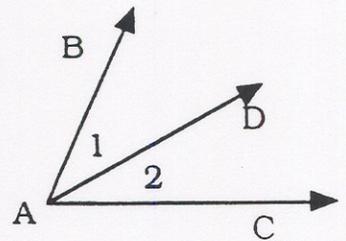
$\angle 1$ and $\angle 2$ are supplementary.



$$m\angle 1 + m\angle 2 = 180^\circ$$

$\angle 1$ and $\angle 2$ are supplementary.

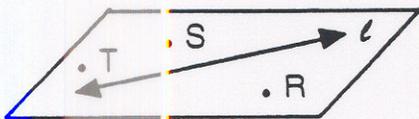
$$\angle 1 \cong \angle 2$$



ray AD bisects $\angle BAC$

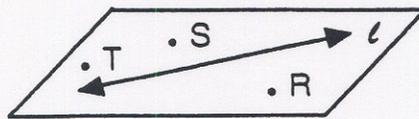
$$\angle 1 \cong \angle 2$$

R, S, and T are coplanar.



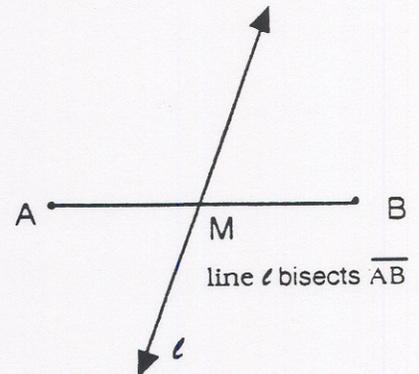
R, S, and T are coplanar.

Line l and point R determine a plane.



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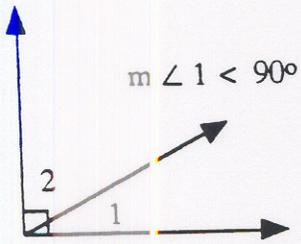
$$\overline{AM} \cong \overline{MB}$$



line l bisects \overline{AB}

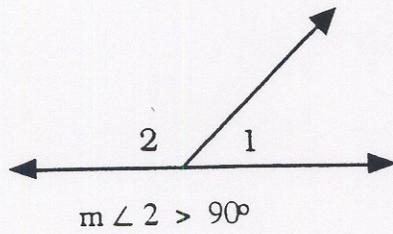
$$\overline{AM} \cong \overline{MB}$$

$\angle 1$ is an acute angle.



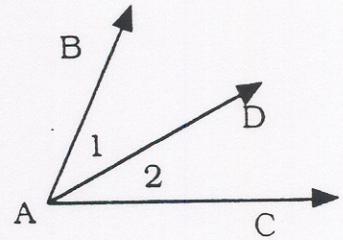
$\angle 1$ is an acute angle.

$\angle 2$ is an obtuse angle.



$\angle 2$ is an obtuse angle.

$\angle 1$ and $\angle 2$ are adjacent angles.



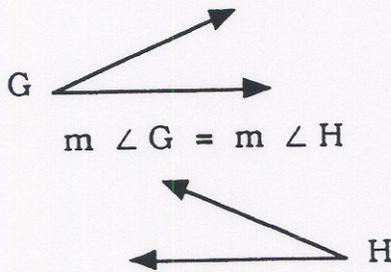
$\angle 1$ and $\angle 2$ are adjacent angles.

$$AQ + QB = AB$$



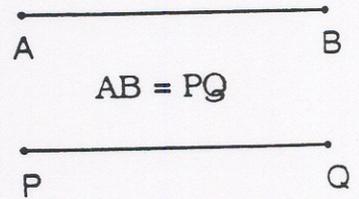
$$AQ + QB = AB$$

$$\angle G = \angle H$$



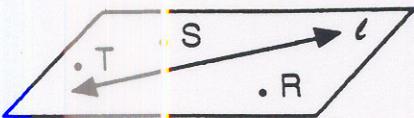
$$\angle G \cong \angle H$$

$$\overline{AB} = \overline{PQ}$$



$$\overline{AB} \cong \overline{PQ}$$

R and T are in different half-planes.



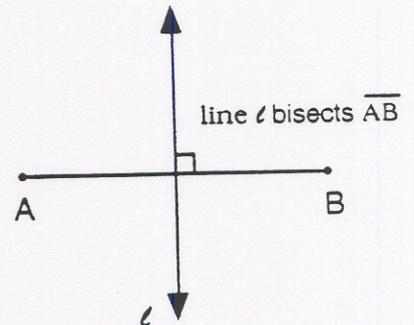
R and T are in different half-planes.

\overrightarrow{AC} and \overrightarrow{AB} are opposite rays.



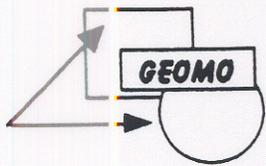
\overrightarrow{AC} and \overrightarrow{AB} are opposite rays.

Line l is the perpendicular bisector of segment AB.



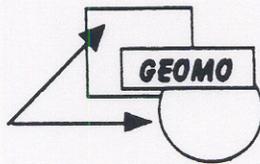
Line l is the perpendicular bisector of segment AB.

When two straight lines intersect, the vertical angles formed are congruent.



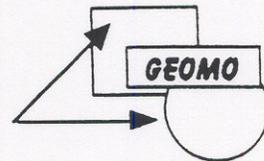
When two straight lines intersect, the vertical angles formed are congruent.

Perpendicular lines, the angles form four right angles which are all congruent.



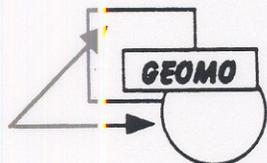
Perpendicular lines, the angles form four right angles which are all congruent.

When two straight lines intersect, the adjacent angles are a linear pair.



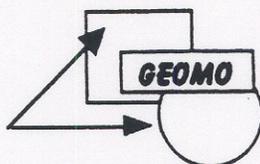
When two straight lines intersect, the adjacent angles are a linear pair.

When the sum of the measures of two adjacent angles is 90° the angles are complimentary.



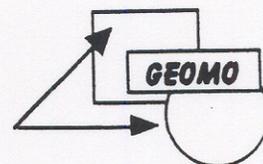
When the sum of the measures of two adjacent angles is 90° the angles are complimentary.

When the sum of the measures of two adjacent angles is 180° the angles are supplementary.



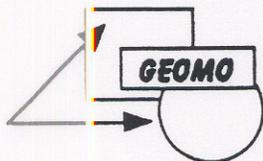
When the sum of the measures of two adjacent angles is 180° the angles are supplementary.

A bisector divides an angles into two congruent angles.



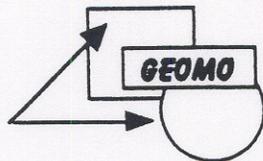
A bisector divides an angles into two congruent angles.

Three non-collinear points are coplanar.



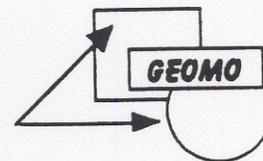
Three non-collinear points are coplanar.

A line and a point not on that line determine a plane.



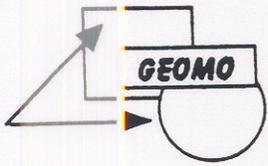
A line and a point not on that line determine a plane.

A bisector divides a segment into two congruent segments.



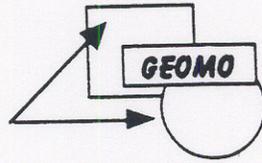
A bisector divides a segment into two congruent segments.

If an angle has a measure less than 90° , the angle is acute.



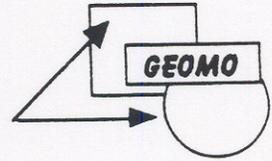
If an angle has a measure less than 90° , the angle is acute.

If an angle has a measure greater than 90° , the angle is obtuse.



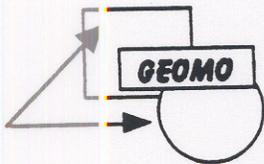
If an angle has a measure greater than 90° , the angle is obtuse.

If two angles have a common vertex, a common side, and no common interior points, the angles are adjacent.



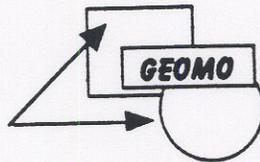
If two angles have a common vertex, a common side, and no common interior points, the angles are adjacent.

If Q is between A and B, then $AQ + QB = AB$.



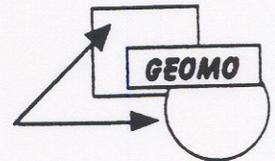
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If two angles have equal measures, then they are congruent.



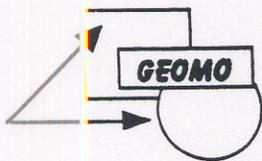
If two angles have equal measures, then they are congruent.

If two segments have equal measures, then they are congruent.



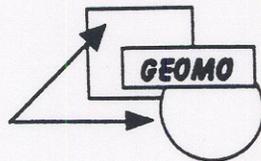
If two segments have equal measures, then they are congruent.

If \overline{RT} intersects l , then R and T are in opposite half-planes.



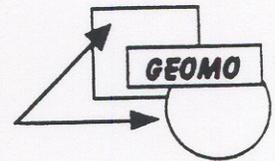
If \overline{RT} intersects l , then R and T are in opposite half-planes.

If A, B, and C are collinear and A is between B and C then \overrightarrow{AC} and \overrightarrow{AB} are opposite rays.



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If a line is perpendicular to a segment and bisects the segment, then the line is the perpendicular bisector of the segment.



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