Jakarta International School

8th Grade – AG1

Practice Test - Green

Points, Lines, and Planes
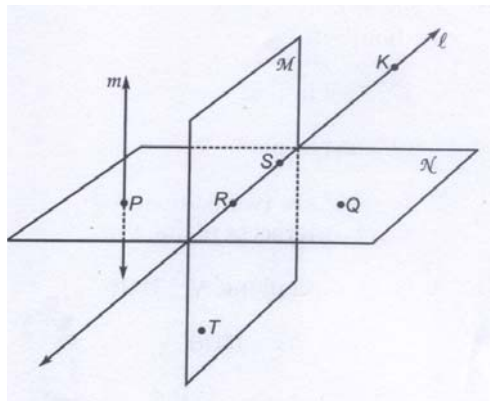
Name:

_____

Date:

_____

Score: (___ / 20)

Goal 5: Solve problems using visualization and geometric modeling

Section 1: **Points, Lines, and Planes**

Use the diagram above to answer the following questions. (1.5 points per problem)

1. How many planes contain $\overleftrightarrow{RS}$?   _____

2. What is the intersection of line m and plane N ?   _____

3. Are R, P, S and T coplanar ?   _____

4. What is the intersection of line ℓ and plane M _____
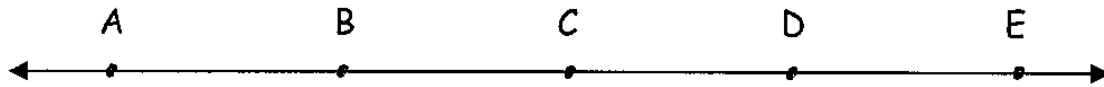
Section 2: **Distance, Line Segments, and Rays**

**5. Using the number line below, state all the line segments congruent
    to $\overline{AC}$.** (3 points)
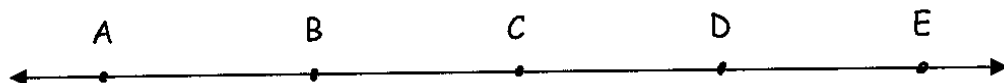
Answers: _____

Use the following diagram for questions 6, 7, and 8 (3 points)

$$A \qquad B \qquad C \qquad D \qquad E$$

Find the intersection of:

6. $\overrightarrow{AB}$ and $\overrightarrow{CD}$ _____

7. $\overrightarrow{CA}$ and $\overrightarrow{CE}$ _____

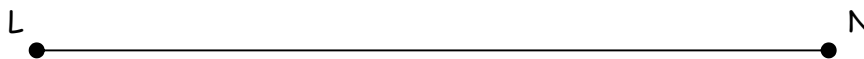8. $\overrightarrow{AC}$ and $\overrightarrow{DB}$ _____

Section 3: Midpoints

9. On a number line, if the coordinate of point **A** is **-2** and a point **B** is **5**, find: (2 points)
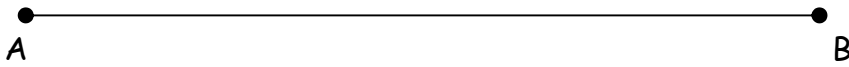
A. the coordinate of point **C** if **B** is the midpoint of $\overrightarrow{AC}$

B. the length of $\overline{AC}$

10. $\overline{LN}$ is bisected at point **M.** The measure of $\overline{LM}$ is **5x+4.** The measure of $\overline{MN}$ is **11 - 2x.** Find the measure of $\overline{LN}$. (3 points)

$$L \qquad\qquad\qquad\qquad\qquad\qquad N$$

Section 4: *Constructions* (3 points)

A •————————————————————————• B

- Using a straight edge and a compass, construct a line segment congruent to $\overline{AB}$ and name it $\overline{CD}$.

- Bisect $\overline{CD}$ at point P

- Place point M on $\overline{PD}$ and construct a perpendicular line through M so that $\overleftrightarrow{LM} \perp \overline{PD}$.