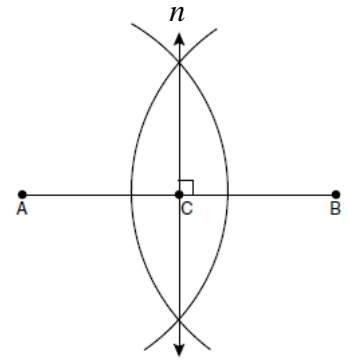
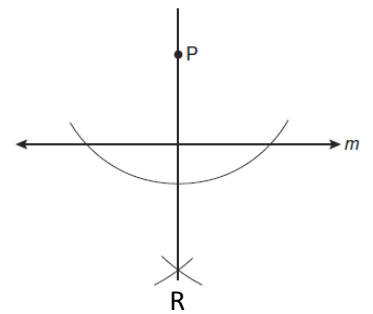


1. Using the two constructions at right,
 - a. What is the relationship of line n to \overline{AB} in the top construction?
 - b. What does point C become in terms of \overline{AB} ?
 - c. What is true about AC and CB?
 - d. What do you see that is similar in the bottom construction?

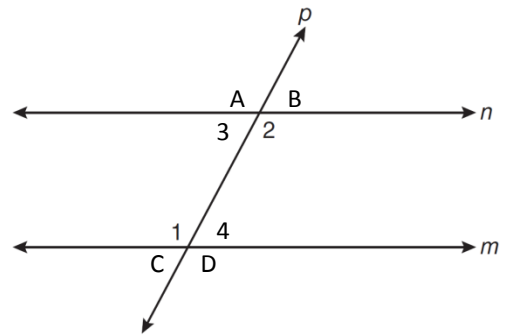


- e. What do you think the relationship is between \overleftrightarrow{PR} and line m ?
- f. Identify where the collinear points S, T, and U would be on line m that have been created by the construction, such that $ST = TU$.



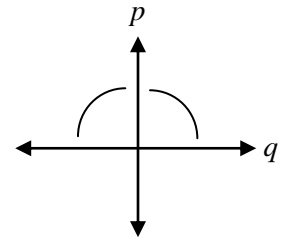
2. Using the drawing below in which line $n \parallel$ line m and line p is a transversal,

- a. Name one pair of corresponding angles: _____
 What is true about their angle measures? _____
 What is true about the angles as figures? _____
- b. Name one pair of alternate interior angles: _____
 What is true about their angle measures? _____
 What is true about the angles as figures? _____
- c. Name one pair of alternate exterior angles: _____
 What is true about their angle measures? _____
 What is true about the angles as figures? _____
- d. Name one pair of same side interior angles: _____
 What is true about their angle measures? _____
 What is true about the angles as figures? _____



- e. If the lines were not parallel, would the angle measure relationships hold?

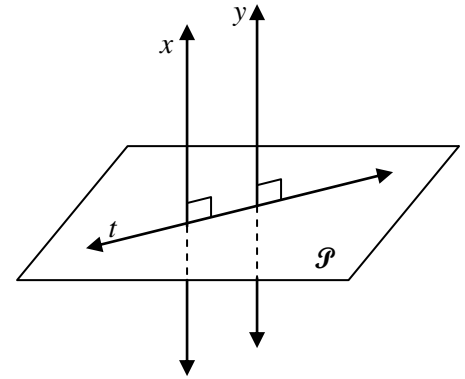
3. A pair of supplementary and congruent angles means that each angle is a _____ angle (from lesson 2-7). What can you induce about the relationship between lines p and q ? _____



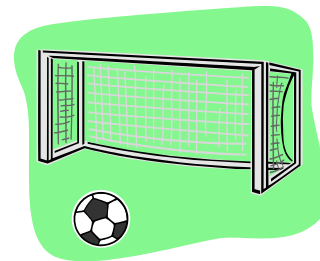
4. Given that lines x and y are perpendicular to line t ,
 a. What can you induce about the relationship of the lines to each other?



(Think about the uprights of a football goal that are perpendicular to the crossbar at the bottom).



b. What can you conclude about the relationship between plane \mathcal{P} and the plane that contains lines x and y ? (Think about the plane created between two soccer goal posts and the ground)



5. How would you make sure that the football goal above is fair and isn't leaning to any side at all?

6. Given the xy -plane at right,

- a. What is the slope of line l ? _____
- b. What is the slope of line m ? _____
- c. What is the relationship between lines l and m ? _____
 - i. What do you see about their slopes? _____
 - ii. Are their y -intercepts the same? _____
- d. What is the slope of line n ? _____
- e. What is the relationship between lines l and n ? _____
 - i. What do you see about their slopes?

