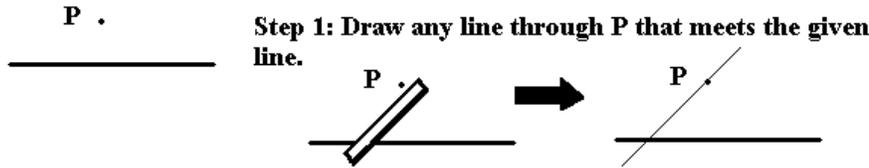
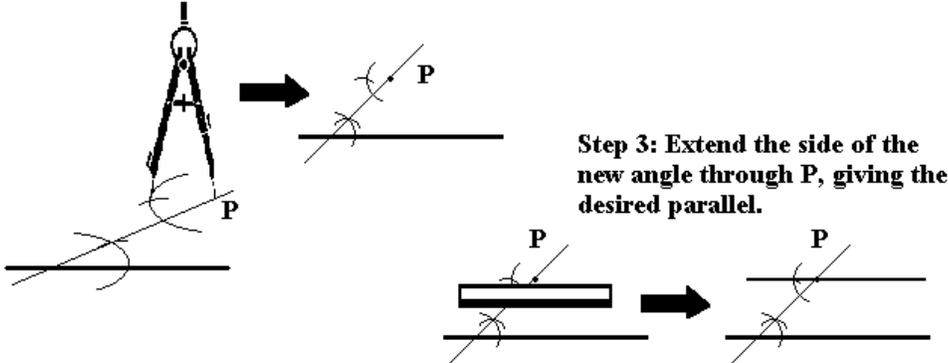


Method 1: use Copy an Angle construction

Construct a parallel to a given line through a point not on that line.



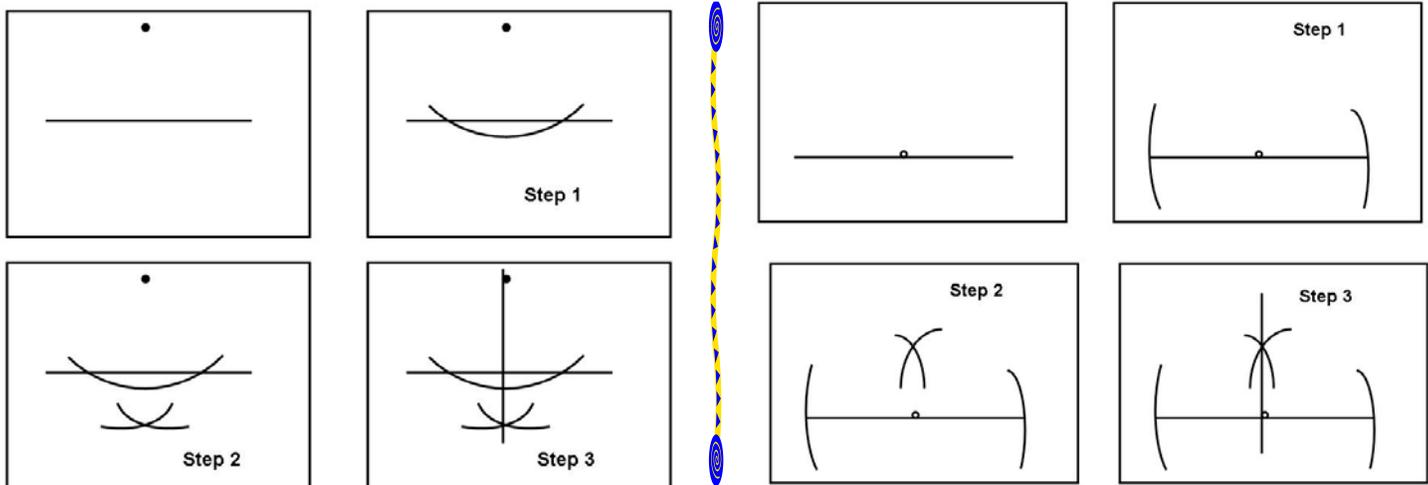
Step 2: Copy the angle at A on the other side of the line just drawn with vertex at P.



- With a straightedge, draw a line through point R that intersects the given line, forming an angle.
- Use the COPY AN ANGLE construction to copy the angle formed ($\angle RJQ$) at point R .
- The line will be parallel to the given line.

OR

Method 2: Use Perpendicular (through point off line) and Perpendicular (through point on line)



- Construct a perpendicular from point off the line.
 - From given point, draw an arc that intersects the given line twice.
 - From both intersection points, draw equal arcs so that they intersect.
 - Connect the last intersection point with the given point... Perpendicular Line.
- Construct a perpendicular from point on a line.
 - From given point, draw an arc that intersects the given line twice.
 - From both intersection points, draw equal arcs on so that they intersect.
 - Connect the last intersection point with the given point... Perpendicular Line
- The second perpendicular line will be parallel to the given line.

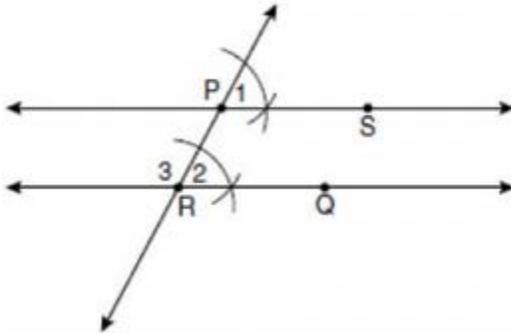


- Parallel lines are always _____ to each other and have _____ slopes.
- Using Method 1 for constructing parallel lines we must construct and copy an angle. Therefore, when a line is drawn through two parallel lines, _____ angles must be formed.
- Given the alphabet, indicate which capital letters contain parallel segments. (circle all that apply)

A B C D E F G
 H I J K L M N
 O P Q R S T U
 V W X Y Z



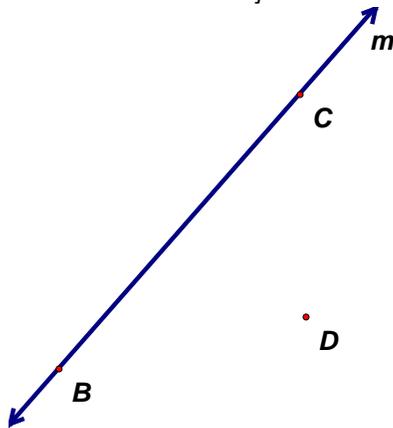
- The diagram below illustrates the construction of \overline{PS} parallel to \overline{RQ} through point P . (multiple choice)



Which statement justifies this conclusion?

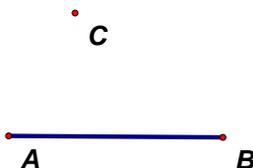
- $m\angle 1 = m\angle 2$
- $m\angle 1 = m\angle 3$
- $\overline{PS} \cong \overline{RQ}$
- $\overline{PR} \cong \overline{RQ}$

- Using a compass and straightedge, construct a line that passes through point P and is parallel to line m . [leave all construction marks]



- Construct a parallel line for each of the following segments that passes through its nearby point.

a)



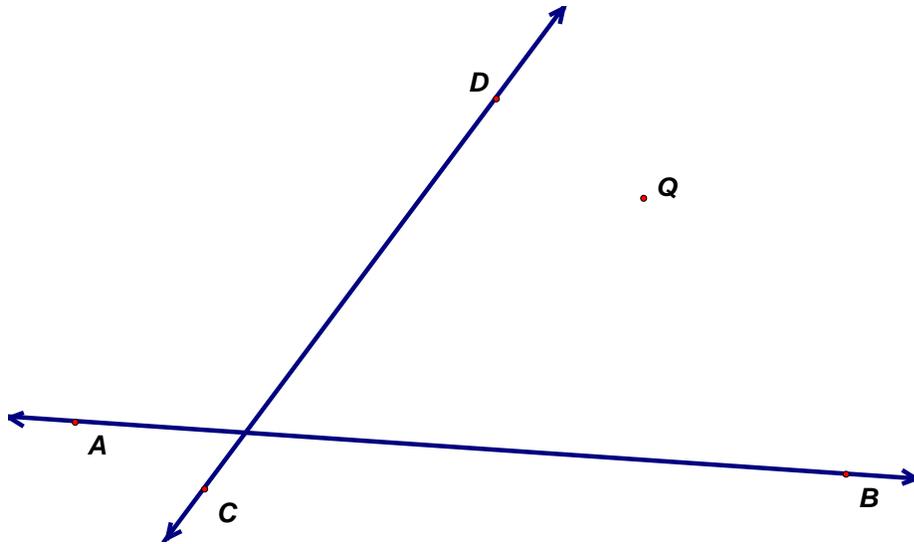
b)





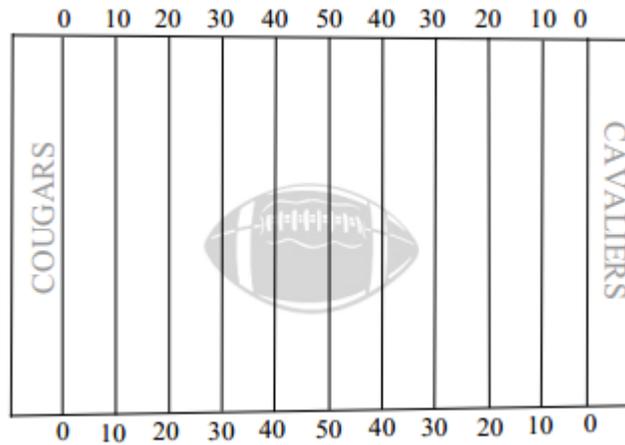
7) Complete the following construction:

- a) Construct a line parallel to \overleftrightarrow{AB} through Q .
- b) Construct a line parallel to \overleftrightarrow{CD} through Q .
- c) What is the name of the resulting shape?



8) The grounds crew is painting lines on a football field.

Are the two sides parallel?



Why is it important that the lines are parallel?

Show your construction and use mathematics to justify your response with words, symbols or both.