

## How-To Construction Booklet

You have learned to perform several constructions using the compass and straightedge and also using patty paper. You will be demonstrating your knowledge of these skills by putting together a How-To Construction Booklet. The booklet is to be designed using regular sized paper (8.5 inches by 11 inches). The booklet will contain the following sections:

- Demonstration of each basic construction along with directions on how the construction is completed using a compass and straightedge
- Demonstration of each basic construction along with directions on how the construction is completed using patty paper
- Demonstration of how constructions are used in solving problems (use one sheet of paper for each construction)
  - Select two homework problems to demonstrate your ability to use compass and straightedge constructions.
  - Select two homework problems to demonstrate your ability to use patty paper constructions..
- Create a wanted poster illustrating your knowledge of either an incenter (A-G), circumcenter(H-L), centroid (M-R), or orthocenter (S-Z). *Construct the one point of concurrency based on the first letter of your last name.* The wanted poster should contain a picture of the point of concurrency (constructed very carefully) and a description that tells me what you know about the special properties of this point that makes it different from the other points of concurrency. Use your creativity to make the description interesting.
- Construct the Nine Point Circle for extra credit on a full sheet of blank paper using the compass and straightedge. (10 points)
- *You may demonstrate the compass and straightedge constructions using the Geometer's sketchpad.*



Wanted

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### Basic constructions to be included

- **Duplication of line segment**
- **Duplication of angle**
- **Construction of an angle bisector**
- **Construction of a perpendicular bisector to a line segment**
- **Construction of a perpendicular to a line from a point off the line**
- **Construction of a perpendicular to a line through a point on the line**
- **Construction of a perpendicular to a line through a point on the line**