Math 520 Some Definitions from Chapter 2 Put Your Name In Here

For this assignment, you should copy this document as closely as possible (including all directions). Put your name in the top right corner. These are some definitions from Chapter 2 that you should already know. You will be graded on how closely your document matches this one.

1. **Definition** - A *segment* $\overline{AB}$ consists of points A and B and all those points C on the line through A and B such that C is between A and B.
2. **Definition** - A *ray* $\overrightarrow{AB}$ consists of the segment $\overline{AB}$ together with those points C on the line through A and B such that B is between A and C.
3. **Definition** - The *angle with vertex* A consists of the point A together with the two rays $\overrightarrow{AB}$ and $\overrightarrow{AC}$ (The *sides* of the angle). We denote an angle with vertex A and the sides $\overrightarrow{AB}$ and $\overrightarrow{AC}$ by $\angle BAC$.
4. Some Notation:
   - The *degree measure* of $\angle ABC$ will be denoted by $m\angle ABC$.
   - The *length* of $\overline{AB}$ will be denoted by AB.
5. **Definition** - A *right angle* is an angle that has a supplementary angle to which it is congruent.
6. **Definition** - Two lines that intersect are *perpendicular* if one of the angles made at the intersection is a right angle.
7. **Definition** - Two lines are parallel if they are in the same plane and do not intersect.
8. **Definition** - A *bisector* of a segment $\overline{AB}$ is a point C on the segment such that $\overline{AC}$ is congruent to $\overline{CB}$. A bisector of an angle $\angle BAC$ is a ray $\overrightarrow{AD}$ such that $\angle BAD$ is congruent to $\angle DAC$.

Below are the first 5 of Euclid's Postulates from his book *The Elements*:

1. Any 2 points determine a line
2. Any line segment can be extended by an arbitrary length
3. Given a point C and another point A there exists a circle with center C and radius $\overline{CA}$.
4. All right angles are congruent
5. **Parallel Postulate:** Given a line l and a point P not on l, there is a unique line passing through P parallel to l.

Finally, I would like you to insert a graphic below. Use something from Geometry Explorer. It should be some sort of geometric diagram with labels. Do not make it too simple. It should be uniquely yours and different from the rest of the class. Save the image from Geometry Explorer in the same folder with this LaTeXdocument.