Last time we reviewed the Axioms of Incidence and covered the first three Axioms of Congruence. We worked on drawing a straight line using a ruler and use a compass to draw a segment of exactly the same length as a given one.
Today, we will review the concepts introduced last time and we will start small problems. I will wait until July to introduce the angle and the related axioms.

The following problems are from a “Culegere de probleme de geometrie” by Gheorghe Adalbert Schneider.

1. Let A, B, C be distinct points. How many may be determined by these points?

Recall definition of distinct, axioms.
We say a line is *determined* by two distinct points on it.

2. Let A, B, C, D be distinct points. How many may be determined by these points?

3. Let A_1, A_2, ..., A_n be distinct and collinear points. How many lines are determined by these points?

Collinear means they all lie on the same line.

4. Let A1, A2, A3 be distinct points such that no three are collinear. How many lines do they determine?
5. Let A1, A2, A3, A4 be distinct points such that no three are collinear. How many lines do they determine?
6. (HW) Let A1, A2, A3, A4, A5 be distinct points such that no three are collinear. How many lines do they determine?
7. (HW) Can you guess the next numbers in the sequence for six points?
8. Let A, B, C, D be points on a line *l* in the order A*B*C*D such that $AC \simeq BD$. Show that $AB \simeq CD$.

It is necessarily true that $AC \simeq BD$ if $AB \simeq CD$?

9. Let C and D be points on the segment AB such that $AC \simeq BD$. Show $CB \simeq BD$.