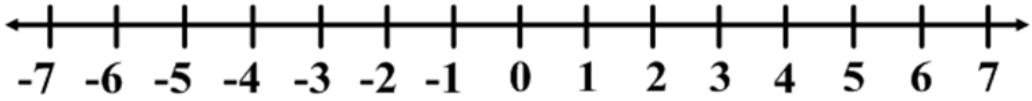
Def. Postulate

A geometric statement that is assumed to be true.

Post. 2-8 The Ruler Postulate

The points on any line can be paired with real numbers.



Def. ≅ Segments

Two segments are ≅ if and only if they have the same measurements.

Post. 2-9 Segment Addition Postulate

If B is between A and C, then AB +BC = AC

Def. Theorem

A geometric statement that must be proven.

Th. 2.1 The Midpt. Theorem

If M if the midpt. of $\overline{AB}$, then $\overline{AM} \cong \overline{MB}$

Def. Proof

A logical step by step argument in which a statement that is made is supported by a statement that is accepted as true.

1. Given Information
2. Algebraic Properties
3. Definitions
4. Postulates
5. Theorems
6. Corollaries

Algebraic Properties

Addition Property

Subtraction Property

Multiplication Property

Division Property

Substitution Property

More Algebraic Properties

Reflexive

Symmetrtic

Transitive

Example 1: **Write a paragraph proof.**

Given: $\overline{AB} \cong \overline{CD}$

M is the midpt. of AB

Line *l* bisects CD at pt. N

Prove: $\overline{AM} \cong \overline{ND}$