

The following properties apply to both segments and angles.

**Addition property, §2.5**

If a segment (or angle) is added to two congruent segments (or angles), then the sums are congruent.

A related saying:

If congruent segments (or angles) are added to congruent segments or angles, then the sums are congruent.

Use the addition property when the 'prove' item is bigger than the 'given' item.

**Subtraction Property, §2.5**

If a segment (or angle) is subtracted from congruent segments (or angles), then the differences are congruent.

A related saying:

If congruent segments (or angles) are subtracted from congruent segments (or angles), then the differences are congruent.

Use the subtraction property when the 'prove' item is smaller than the 'given' item.

**Multiplication Property, §2.6**

If segments (or angles) are congruent, then their like multiples are congruent.

- Doubles of congruent angles are congruent.
- Triples of congruent angles are congruent

Use the multiplication property when the 'prove' item is bigger than the 'given' item.

**Division Property, §2.6**

If segments (or angles) are congruent, then their like divisions are congruent.

- Halves of congruent angles are congruent
- Thirds of congruent angles are congruent

Use the division property when the 'prove' item is smaller than the 'given' item.