

# Mathematical System

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# What is a Mathematical System?

A mathematical system is a structure that consists of defined and undefined terms, axioms or postulates, and theorems.

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2. Defined Terms: terms that include a category or are formed using other defined words or terms
3. Axioms or Postulates: statements that are assumed to be true without proof
4. Theorems: statements that are proved from definitions, postulates, or using operations and facts that were already known

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- ▶ forms a flat surface extending indefinitely in all directions
- ▶ is drawn as a four-sided figure resembling a tabletop or a parallelogram

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4. Angle: a set of points consisting of the union of two rays with a common endpoint

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5. Symmetric Property: If  $a = b$ , then  $b = a$ .

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5. Symmetric Property: If  $a = b$ , then  $b = a$ .
6. Multiplication Property of Equality: If  $a = b$ , then  $(a)(c) = (b)(c)$ .

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2. Complement Theorem: If two angles are complement of the same (or congruent) angles, then they are congruent.
3. Supplement Theorem: If two angles are supplement of the same (or congruent) angles, then they are congruent.

**Thank you for watching.**