



Nov 3-9:26 AM

**Introduction to Proof**



What is proof?

Proof is a method for making an argument.

Statements are made and justifications are given.

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**Styles of Geometric Proof**

- 1. Two-Column Proof

Structure is a chart format. Steps are numbered and statements & reasons given.



- 2. Paragraph Proof

Statements and reasons are written in sentence format.

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**\*\*For either type of proof, you can justify your statements using postulates, definitions, or properties**



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**Proof Using Algebra**

Given:  $5(3a - 7) = 10$  Prove:  $a = 3$

Statement	Reasons
① $5(3a - 7) = 10$	① Given
② $15a - 35 = 10$	② distribute
③ $15a = 45$	③ add prop
④ $a = 3$	④ division prop

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**Proof Using Algebra**

Given:  $2n - 3(n + 6) = 5$  Prove:  $n = -23$

Statement	Reasons
① $2n - 3(n + 6) = 5$	① Given
② $2n - 3n - 18 = 5$	② Distribute
③ $-1n - 18 = 5$	③ Substitution
④ $-1n = 23$	④ add prop.
⑤ $n = -23$	⑤ division prop.

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