

## PAGEBREAK Examples

### Example 1 : Basic Page Break

This content appears on the first page.

*PAGEBREAK*

This content appears on the next page. The PAGEBREAK directive forces a page break at that point in the document.

### Example 2 : Separating Solutions

When preparing solutions for submission, you may want each solution on a separate page.

#### Solution 1

First solution content here.

$\forall x : \mathbb{N} \bullet x \geq 0$

Explanation of solution 1.

*PAGEBREAK*

#### Solution 2

Second solution content here.

$\exists y : \mathbb{N} \bullet y > 10$

Explanation of solution 2.

*PAGEBREAK*

#### Solution 3

Third solution content here.

### Example 3 : Section Separation

#### Section 1 : Propositional Logic

Content for section 1 covering propositional logic operators and truth tables.

$p \wedge q \Rightarrow p$

More content for section 1.

*PAGEBREAK*

#### Section 2 : Predicate Logic

Content for section 2 covering quantifiers and predicates.

$\forall x : \mathbb{N} \bullet \exists y : \mathbb{N} \bullet x + y = 10$

More content for section 2.

## Example 4 : Long Proofs

For lengthy proofs, you might want to start each major proof on a new page:

### Theorem 1

$$\frac{\frac{\frac{\neg(p \wedge (p \Rightarrow q))}{p} [\wedge\text{-elim-1}] \quad \frac{\neg(p \wedge (p \Rightarrow q))}{p \Rightarrow q} [\wedge\text{-elim-2}]}{q} [\Rightarrow\text{-intro}^{[1]}]}{(p \wedge (p \Rightarrow q)) \Rightarrow q}$$

End of proof for Theorem 1.

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### Theorem 2

$$\frac{\frac{\frac{\neg(p \vee q) \wedge \neg q}{p \vee q} [\wedge\text{-elim-1}] \quad \frac{\neg(p \vee q) \wedge \neg q}{\neg q} [\wedge\text{-elim-2}]}{\frac{\neg q}{p} [\vee\text{-elim}]} [\Rightarrow\text{-intro}^{[1]}]}{(p \vee q) \wedge \neg q \Rightarrow p}$$

End of proof for Theorem 2.

## Example 5 : Strategic Page Breaks

Use PAGEBREAK strategically to improve document readability. Don't overuse it—let LaTeX handle most page breaking automatically.

Good uses of PAGEBREAK include:

- Starting new major sections
- Separating independent solutions
- Ensuring related content stays together

## Example 6 : Avoiding Orphans

When you have a section title or definition that would appear at the bottom of a page with its content on the next page, you might insert a PAGEBREAK before the section.

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## Important Definition

$$\frac{\text{critical} : \mathbb{N} \rightarrow \mathbb{N}}{\forall n : \mathbb{N} \bullet \text{critical}(n) = n * n}$$

This ensures the definition stays with its title.

## **Example 7 : Submission Formatting**

For coursework submissions, instructors may require one solution per page:

### **Problem 1**

Solution to problem 1 goes here.

*PAGEBREAK*

### **Problem 2**

Solution to problem 2 goes here.

*PAGEBREAK*

### **Problem 3**

Solution to problem 3 goes here.

This format makes it easy for instructors to review and grade individual problems.