

## 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

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

End of proof for Theorem 1.

PAGEBREAK

### Theorem 2

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

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.

PAGEBREAK

### Important Definition

$$\left| \begin{array}{l} \text{critical} : \mathbb{N} \rightarrow \mathbb{N} \\ \hline \forall n : \mathbb{N} \bullet \text{critical}(n) = n * n \end{array} \right.$$

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.