

# Increment and Decrement Operators

Talk to a Teacher

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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# Learning Objectives



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- ▶ Increment and Decrement Operators



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- ▶ ++



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- ▶ Increment and Decrement Operators
- ▶ ++
  - ▶ eg. `a++` is a postfix increment operator
  - ▶ `++a` is a prefix increment operator
- ▶ --



# Learning Objectives

- ▶ **Increment and Decrement Operators**
- ▶ **++**
  - ▶ eg. `a++` is a postfix increment operator
  - ▶ `++a` is a prefix increment operator
- ▶ **--**
  - ▶ -- eg. `a--` is a postfix decrement operator



# Learning Objectives

## ▶ Increment and Decrement Operators

### ▶ ++

- ▶ eg. `a++` is a postfix increment operator
- ▶ `++a` is a prefix increment operator

### ▶ --

- ▶ -- eg. `a--` is a postfix decrement operator
- ▶ `--a` is a prefix decrement operator



# Learning Objectives

- ▶ Increment and Decrement Operators
- ▶ ++
  - ▶ eg. `a++` is a postfix increment operator
  - ▶ `++a` is a prefix increment operator
- ▶ --
  - ▶ -- eg. `a--` is a postfix decrement operator
  - ▶ `--a` is a prefix decrement operator
- ▶ **Typecasting**



# System Requirements



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- ▶ Ubuntu 11.10 as the operating system.



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- ▶ gcc and g++ Compiler version 4.6.1 on Ubuntu.



# Introduction



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# Introduction

- ▶ The `++` operator increases the existing value of the operand by one
- ▶ `a++` and `++a` are equivalent to  $a = a + 1$
- ▶ The `--` operator decreases the existing value of the operand by one
- ▶ `a--` and `--a` are equivalent to  $a = a - 1$



# Typecasting



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- ▶ Typecasting is done by enclosing the data type you want within parenthesis



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- ▶ (float)



# Typecasting

- ▶ Typecasting is done by enclosing the data type you want within parenthesis
- ▶ (float)
- ▶ (float)a



# Summary

- ▶ To use the increment and decrement operators



# Summary

- ▶ To use the increment and decrement operators
- ▶ postfix and prefix forms



# Summary

- ▶ To use the increment and decrement operators
- ▶ postfix and prefix forms
- ▶ **typecasting**



# Assignment

- ▶ Write a program to solve the following expression:



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- ▶  $(a/b) + (c/d)$



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- ▶ The values of a, b, c and d are taken as input from the user



# Assignment

- ▶ Write a program to solve the following expression:
- ▶  $(a/b) + (c/d)$
- ▶ The values of a, b, c and d are taken as input from the user
- ▶ Use typecasting to perform real division



# About the Spoken Tutorial Project

- ▶ Watch the video available at [http://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](http://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



# Spoken Tutorial Workshops

## The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)



# Acknowledgements

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- ▶ It is supported by the National Mission on Education through ICT, MHRD, Government of India
- ▶ More information on this Mission is available at:

<http://spoken-tutorial.org/NMEICT-Intro>

