##### Type Casting in Java

Type casting is when you assign a value of one primitive data type to another type.

In Java, there are two types of casting:

* **Widening Casting** (automatically) - converting a smaller type to a larger type size  
  byte -> short -> char -> int -> long -> float -> double
* **Narrowing Casting** (manually) - converting a larger type to a smaller size type  
  double -> float -> long -> int -> char -> short -> byte

**Widening Casting**

Widening casting is done automatically when passing a smaller size type to a larger size type:

|  |
| --- |
| public class Main {  public static void main(String[] args) {  int myInt = 9;  double myDouble = myInt; // Automatic casting: int to double  System.out.println(myInt); // Outputs 9  System.out.println(myDouble); // Outputs 9.0  }  } |

**Narrowing Casting**

Narrowing casting must be done manually by placing the type in parentheses in front of the value:

|  |
| --- |
| public class Main {  public static void main(String[] args) {  double myDouble = 9.78d;  int myInt = (int) myDouble; // Manual casting: double to int  System.out.println(myDouble); // Outputs 9.78  System.out.println(myInt); // Outputs 9  }  } |