CHAR TO

```java
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // char to boolean type casting
  char a = 'A';
  boolean b;
  b = (boolean) a;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);

  }
}
```

```
Main.java:6: error: incompatible types: char cannot be converted to boolean
    b = (boolean) a;
                  ^
1 error
```

```java
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // char to double type casting
  char a = 'A';
  double b;
  b = (double) a;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);

  }
}
```

```
a = A
b = 65.0
```

```java
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // char to float type casting
  char a = 'A';
  float b;
  b = (float) a;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);

  }
}
```

```
a = A
b = 65.0
```

```java
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // char to long type casting
  char a = 'A';
  long b;
  b = (long) a;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);

  }
}
```

```
a = A
b = 65
```

```java
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // char to int type casting
  char a = 'A';
  int b;
  b = (int) a;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);

  }
}
```

```
a = A
b = 65
```

```java
class Main {
  public static void main(String[] args) {
    // char to short type casting
    char a = 'A';
    short b;
    b = (short) a;

      System.out.println("a =" + " " +a);
      System.out.println("b =" + " " +b);

    }
}
```

// OUTPUT ----->>>

```
a = A
b = 65
```

```java
class Main {
  public static void main(String[] args) {
    // char to byte type casting
    char a = 'A';
    byte b;
    b = (byte) a;

      System.out.println("a =" + " " +a);
      System.out.println("b =" + " " +b);

    }
}
```

// OUTPUT ----->>>

```
a = A
b = 65
```

```java
class Main {
  public static void main(String[] args) {
    // char to char type casting
    char a = 'A';
    char b;
    b = a;
      System.out.println("a =" + " " +a);
       System.out.println("b =" + " " +b);
    }
}
```

// OUTPUT ----->>>

```
a = A
b = A
```

BYTE TO

```java
class Main {
  public static void main(String[] args) {
    // byte to boolean type casting
    byte a = 127;
    boolean b;
    b = (boolean) a;
    byte c = 127;
    boolean d;
    d = (boolean) c;

      System.out.println("a =" + " " +a);
      System.out.println("b =" + " " +b);
      System.out.println("c =" + " " +c);
      System.out.println("d =" + " " +d);

    }
}
```

// OUTPUT ----->>>

```
Main.java:6: error: incompatible types: byte cannot be converted to boolean
    b = (boolean) a;
                  ^
Main.java:9: error: incompatible types: byte cannot be converted to boolean
    d = (boolean) c;
                  ^
2 errors
```

```java
class Main {
  public static void main(String[] args) {
    // byte to byte type casting
    byte a = 127;
    byte b;
    b = (byte) a;
    byte c = 127;
    byte d;
    d = (byte) c;

      System.out.println("a =" + " " +a);
      System.out.println("b =" + " " +b);
      System.out.println("c =" + " " +c);
      System.out.println("d =" + " " +d);

    }
}
```

// OUTPUT ----->>>

```
a = 127
b = 127
c = 127
d = 127
```

```java
class Main {
  public static void main(String[] args) {                          // OUTPUT ----->>>
  // byte to short type casting
  byte a = 127;
  short b;
  b = (short) a;
  byte c = 127;
  short d;
  d = (short) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 127
b = 127
c = 127
d = 127
```

```java
class Main {
  public static void main(String[] args) {                          // OUTPUT ----->>>
  // byte to double type casting
  byte a = 127;
  double b;
  b = (double) a;
  byte c = 127;
  double d;
  d = (double) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 127
b = 127.0
c = 127
d = 127.0
```

```java
class Main {
  public static void main(String[] args) {                          // OUTPUT ----->>>
  // byte to float type casting
  byte a = 127;
  float b;
  b = (float) a;
  byte c = 127;
  float d;
  d = (float) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 127
b = 127.0
c = 127
d = 127.0
```

```java
class Main {
  public static void main(String[] args) {                    // OUTPUT ----->>>
  // byte to long type casting
  byte a = 127;
  long b;
  b = (long) a;
  byte c = 127;
  long d;
  d = (long) c;

     System.out.println("a =" + " " +a);
     System.out.println("b =" + " " +b);
     System.out.println("c =" + " " +c);
     System.out.println("d =" + " " +d);

  }
}
```

```
a = 127
b = 127
c = 127
d = 127
```

```java
class Main {
  public static void main(String[] args) {                    // OUTPUT ----->>>
  // byte to int type casting
  byte a = 127;
  int b;
  b = (int) a;
  byte c = 127;
  int d;
  d = (int) c;

     System.out.println("a =" + " " +a);
     System.out.println("b =" + " " +b);
     System.out.println("c =" + " " +c);
     System.out.println("d =" + " " +d);

  }
}
```

```
a = 127
b = 127
c = 127
d = 127
```

```java
class Main {
  public static void main(String[] args) {                    // OUTPUT ----->>>
  // byte to char type casting
  byte a = 127;
  char b;
  b = (char) a;
  byte c = 'A';
  char d;
  d = (char) c;

     System.out.println("a =" + " " +a);
     System.out.println("b =" + " " +b);
     System.out.println("c =" + " " +c);
     System.out.println("d =" + " " +d);

  }
}
```

```
a = 127
b =
c = 65
d = A
```

SHORT TO

```java
class Main {
  public static void main(String[] args) {                    // OUTPUT ----->>>
  // short to byte   type casting
  short a = 32767;
  byte  b;
  b = (byte ) a;
  short c = 32767;
  byte  d;
  d = (byte ) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 32767
b = -1
c = 32767
d = -1
```

```java
class Main {
  public static void main(String[] args) {                    // OUTPUT ----->>>
  // short to float type casting
  short a = 32767;
  float b;
  b = (float) a;
  short c = 32767;
  float d;
  d = (float) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 32767
b = 32767.0
c = 32767
d = 32767.0
```

```java
class Main {
  public static void main(String[] args) {                    // OUTPUT ----->>>
  // short to long type casting
  short a = 32767;
  long b;
  b = (long) a;
  short c = 32767;
  long d;
  d = (long) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 32767
b = 32767
c = 32767
d = 32767
```

```java
class Main {
  public static void main(String[] args) {
  // short to int type casting
  short a = 32767;
  int b;
  b = (int) a;
  short c = 32767;
  int d;
  d = (int) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

// OUTPUT ----->>>

```
a = 32767
b = 32767
c = 32767
d = 32767
```

```java
class Main {
  public static void main(String[] args) {
  // short to boolean type casting
  short a = 32767;
  boolean b;
  b = (boolean) a;
  short c = 32767;
  boolean d;
  d = (boolean) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

// OUTPUT ----->>>

```
Main.java:6: error: incompatible types: short cannot be converted to boolean
  b = (boolean) a;
      ^
Main.java:9: error: incompatible types: short cannot be converted to boolean
  d = (boolean) c;
      ^
2 errors
```

```java
class Main {
  public static void main(String[] args) {
  // short to double type casting
  short a = 32767;
  double b;
  b = (double) a;
  short c = 32767;
  double d;
  d = (double) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

// OUTPUT ----->>>

```
a = 32767
b = 32767.0
c = 32767
d = 32767.0
```

```java
class Main {
  public static void main(String[] args) {
  // short to char type casting
  short a = 32767;
  char b;
  b = (char) a;
  short c = 'A';
  char d;
  d = (char) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

// OUTPUT ----->>>

```
a = 32767
b = 翻
c = 65
d = A
```

```java
class Main {
  public static void main(String[] args) {
  // short to short type casting
  short a = 32767;
  short b;
  b = a;
    System.out.println("a =" + " " +a);
      System.out.println("b =" + " " +b);
  }
}
```

// OUTPUT ----->>>

```
a = 32767
b = 32767
```

INT TO

```
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // int to double type casting
  int a = 2147483647;
  double b;
  b = (double) a;
  int c = 2147483647;
  double d;
  d = (double) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 2147483647
b = 2.147483647E9
c = 2147483647
d = 2.147483647E9
```

```
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // int to float type casting
  int a = 2147483647;
  float b;
  b = (float) a;
  int c = 2147483647;
  float d;
  d = (float) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 2147483647
b = 2.14748365E9
c = 2147483647
d = 2.14748365E9
```

```
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // int to long type casting
  int a = 2147483647;
  long b;
  b = (long) a;
  int c = 2147483647;
  long d;
  d = (long) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 2147483647
b = 2147483647
c = 2147483647
d = 2147483647
```

```
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // int to short type casting
  int a = 2147483647;
  short b;
  b = (short) a;
  int c = 2147483647;
  short d;
  d = (short) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 2147483647
b = -1
c = 2147483647
d = -1
```

```java
class Main {
  public static void main(String[] args) {
    // int to byte type casting
    int a = 2147483647;
    byte b;
    b = (byte) a;
    int c = 2147483647;
    byte d;
    d = (byte) c;

      System.out.println("a =" + " " +a);
      System.out.println("b =" + " " +b);
      System.out.println("c =" + " " +c);
      System.out.println("d =" + " " +d);

  }
}
```

// OUTPUT ----->>>

```
a = 2147483647
b = -1
c = 2147483647
d = -1
```

```java
class Main {
  public static void main(String[] args) {
    // int to boolean type casting
    int a = 2147483647;
    boolean b;
    b = (boolean) a;
    int c = 2147483647;
    boolean d;
    d = (boolean) c;

      System.out.println("a =" + " " +a);
      System.out.println("b =" + " " +b);
      System.out.println("c =" + " " +c);
      System.out.println("d =" + " " +d);

  }
}
```

// OUTPUT ----->>>

```
Main.java:6: error: incompatible types: int cannot be converted to boolean
    b = (boolean) a;
                  ^
Main.java:9: error: incompatible types: int cannot be converted to boolean
    d = (boolean) c;
                  ^
2 errors
```

```java
class Main {
  public static void main(String[] args) {
    // int to char type casting
    int a = 2147483647;
    char b;
    b = (char) a;
    int c = 'A';
    char d;
    d = (char) c;

      System.out.println("a =" + " " +a);
      System.out.println("b =" + " " +b);
      System.out.println("c =" + " " +c);
      System.out.println("d =" + " " +d);

  }
}
```

// OUTPUT ----->>>

```
a = 2147483647
b = 
c = 65
d = A
```

```java
class Main {
  public static void main(String[] args) {
    // int to int type casting
    int a = 2147483647;
    int b;
    b = a;
      System.out.println("a =" + " " +a);
       System.out.println("b =" + " " +b);
  }
}
```

// OUTPUT ----->>>

```
a = 2147483647
b = 2147483647
```

LONG TO

```java
class Main {
  public static void main(String[] args) {                       // OUTPUT ----->>>
  // long to int type casting
  long a = 9223372036854775807l;
  int b;
  b = (int) a;
  long c = 9223372036854775807l;
  int d;
  d = (int) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 9223372036854775807
b = -1
c = 9223372036854775807
d = -1
```

```java
class Main {
  public static void main(String[] args) {                       // OUTPUT ----->>>
  // long to short type casting
  long a = 9223372036854775807l;
  short b;
  b = (short) a;
  long c = 9223372036854775807l;
  short d;
  d = (short) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 9223372036854775807
b = -1
c = 9223372036854775807
d = -1
```

```java
class Main {
  public static void main(String[] args) {                       // OUTPUT ----->>>
  // long to byte casting
  long a = 9223372036854775807l;
  byte b;
  b = (byte) a;
  long c = 9223372036854775807l;
  byte d;
  d = (byte) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 9223372036854775807
b = -1
c = 9223372036854775807
d = -1
```

```java
class Main {
  public static void main(String[] args) {                   // OUTPUT ----->>>
  // long to boolean type casting
  long a = 9223372036854775807l;
  boolean b;
  b = (boolean) a;
  long c = 9223372036854775807l;
  boolean d;
  d = (boolean) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
Main.java:6: error: incompatible types: long cannot be converted to boolean
    b = (boolean) a;
                  ^
Main.java:9: error: incompatible types: long cannot be converted to boolean
    d = (boolean) c;
                  ^
2 errors
```

```
class Main {
  public static void main(String[] args) {                    // OUTPUT ----->>>
    // long to float type casting
    long a = 9223372036854775807l;
    float b;
    b = (float) a;
    long c = 9223372036854775807l;
    float d;
    d = (float) c;

      System.out.println("a =" + " " +a);
      System.out.println("b =" + " " +b);
      System.out.println("c =" + " " +c);
      System.out.println("d =" + " " +d);

  }
}
```

```
a = 9223372036854775807
b = 9.223372E18
c = 9223372036854775807
d = 9.223372E18
```

```
class Main {
  public static void main(String[] args) {                    // OUTPUT ----->>>
    // long to double type casting
    long a = 9223372036854775807l;
    double b;
    b = (double) a;
    long c = 9223372036854775807l;
    double d;
    d = (double) c;

      System.out.println("a =" + " " +a);
      System.out.println("b =" + " " +b);
      System.out.println("c =" + " " +c);
      System.out.println("d =" + " " +d);

  }
}
```

```
a = 9223372036854775807
b = 9.223372036854776E18
c = 9223372036854775807
d = 9.223372036854776E18
```

```
class Main {
  public static void main(String[] args) {                    // OUTPUT ----->>>
    // long to char type casting
    long a = 9223372036854775807l;
    char b;
    b = (char) a;
    long c = 'A';
    char d;
    d = (char) c;

      System.out.println("a =" + " " +a);
      System.out.println("b =" + " " +b);
      System.out.println("c =" + " " +c);
      System.out.println("d =" + " " +d);

  }
}
```

```
a = 9223372036854775807
b = ▯
c = 65
d = A
```

```
class Main {
  public static void main(String[] args) {                    // OUTPUT ----->>>
    // long to long type casting
    long a = 9223372036854775807l;
    long b;
    b = a;
      System.out.println("a =" + " " +a);
      System.out.println("b =" + " " +b);
  }
}
```

```
a = 9223372036854775807
b = 9223372036854775807
```

FLOAT TO

```java
class Main {
    public static void main(String[] args) {
        // float to boolean type casting
        float a = 3.4028235E38f;
        boolean b;
        b = (boolean) a;
        float c = 3.4028235E38f;
        boolean d;
        d = (boolean) c;

        System.out.println("a =" + " " +a);
        System.out.println("b =" + " " +b);
        System.out.println("c =" + " " +c);
        System.out.println("d =" + " " +d);

    }
}
```

// OUTPUT ----->>>

```
Main.java:6: error: incompatible types: float cannot be converted to boolean
    b = (boolean) a;
        ^
Main.java:9: error: incompatible types: float cannot be converted to boolean
    d = (boolean) c;
        ^
2 errors
```

```java
class Main {
    public static void main(String[] args) {
        // float to double type casting
        float a = 3.4028235E38f;
        double b;
        b = (double) a;
        float c = 3.4028235E38f;
        double d;
        d = (double) c;

        System.out.println("a =" + " " +a);
        System.out.println("b =" + " " +b);
        System.out.println("c =" + " " +c);
        System.out.println("d =" + " " +d);

    }
}
```

// OUTPUT ----->>>

```
a = 3.4028235E38
b = 3.4028234663852886E38
c = 3.4028235E38
d = 3.4028234663852886E38
```

```java
class Main {
    public static void main(String[] args) {
        // float to long type casting
        float a = 3.4028235E38f;
        long b;
        b = (long) a;
        float c = 3.4028235E38f;
        long d;
        d = (long) c;

        System.out.println("a =" + " " +a);
        System.out.println("b =" + " " +b);
        System.out.println("c =" + " " +c);
        System.out.println("d =" + " " +d);

    }
}
```

// OUTPUT ----->>>

```
a = 3.4028235E38
b = 9223372036854775807
c = 3.4028235E38
d = 9223372036854775807
```

```java
class Main {
    public static void main(String[] args) {
        // float to int type casting
        float a = 3.4028235E38f;
        int b;
        b = (int) a;
        float c = 3.4028235E38f;
        int d;
        d = (int) c;

        System.out.println("a =" + " " +a);
        System.out.println("b =" + " " +b);
        System.out.println("c =" + " " +c);
        System.out.println("d =" + " " +d);

    }
}
```

// OUTPUT ----->>>

```
a = 3.4028235E38
b = 2147483647
c = 3.4028235E38
d = 2147483647
```

```java
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // float to short type casting
  float a = 3.4028235E38f;
  short b;
  b = (short) a;
  float c = 3.4028235E38f;
  short d;
  d = (short) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 3.4028235E38
b = -1
c = 3.4028235E38
d = -1
```

```java
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // float to byte type casting
  float a = 3.4028235E38f;
  byte b;
  b = (byte) a;
  float c = 3.4028235E38f;
  byte d;
  d = (byte) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 3.4028235E38
b = -1
c = 3.4028235E38
d = -1
```

```java
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // float to char type casting
  float a = 3.4028235E38f;
  char b;
  b = (char) a;
  float c = 'A';
  char d;
  d = (char) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 3.4028235E38
b = ￿
c = 65.0
d = A
```

```java
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // float to float type casting
  float a = 3.4028235E38f;
  float b;
  b = a;
    System.out.println("a =" + " " +a);
     System.out.println("b =" + " " +b);
  }
}
```

```
a = 3.4028235E38
b = 3.4028235E38
```

DOUBLE TO

```java
class Main {
  public static void main(String[] args) {              // OUTPUT ----->>>
  // double to float type casting
  double a = 1.7976931348623157E308;
  float b;
  b = (float) a;
  double c = 1.7976931348623157E308;
  float d;
  d = (float) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 1.7976931348623157E308
b = Infinity
c = 1.7976931348623157E308
d = Infinity
```

```java
class Main {
  public static void main(String[] args) {              // OUTPUT ----->>>
  // double to long type casting
  double a = 1.7976931348623157E308;
  long b;
  b = (long) a;
  double c = 1.7976931348623157E308;
  long d;
  d = (long) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 1.7976931348623157E308
b = 9223372036854775807
c = 1.7976931348623157E308
d = 9223372036854775807
```

```java
class Main {
  public static void main(String[] args) {              // OUTPUT ----->>>
  // double to int type casting
  double a = 1.7976931348623157E308;
  int b;
  b = (int) a;
  double c = 1.7976931348623157E308;
  int d;
  d = (int) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 1.7976931348623157E308
b = 2147483647
c = 1.7976931348623157E308
d = 2147483647
```

```java
class Main {
  public static void main(String[] args) {              // OUTPUT ----->>>
  // double to short type casting
  double a = 1.7976931348623157E308;
  short b;
  b = (short) a;
  double c = 1.7976931348623157E308;
  short d;
  d = (short) c;

    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);

  }
}
```

```
a = 1.7976931348623157E308
b = -1
c = 1.7976931348623157E308
d = -1
```

```java
class Main {
    public static void main(String[] args) {          // OUTPUT ----->>>
        // double to byte type casting
        double a = 1.7976931348623157E308;
        byte b;
        b = (byte) a;
        double c = 1.7976931348623157E308;
        byte d;
        d = (byte) c;

        System.out.println("a =" + " " +a);
        System.out.println("b =" + " " +b);
        System.out.println("c =" + " " +c);
        System.out.println("d =" + " " +d);

    }
}
```

```
a = 1.7976931348623157E308
b = -1
c = 1.7976931348623157E308
d = -1
```

```java
class Main {
    public static void main(String[] args) {          // OUTPUT ----->>>
        // double to boolean type casting
        double a = 1.7976931348623157E308;
        boolean b;
        b = (boolean) a;
        double c = 1.7976931348623157E308;
        boolean d;
        d = (boolean) c;

        System.out.println("a =" + " " +a);
        System.out.println("b =" + " " +b);
        System.out.println("c =" + " " +c);
        System.out.println("d =" + " " +d);

    }
}
```

```
Main.java:6: error: incompatible types: double cannot be converted to boolean
    b = (boolean) a;
                  ^
Main.java:9: error: incompatible types: double cannot be converted to boolean
    d = (boolean) c;
                  ^
2 errors
```

```java
class Main {
    public static void main(String[] args) {          // OUTPUT ----->>>
        // double to char type casting
        double a = 1.7976931348623157E308;
        char b;
        b = (char) a;
        double c = 'A';
        char d;
        d = (char) c;

        System.out.println("a =" + " " +a);
        System.out.println("b =" + " " +b);
        System.out.println("c =" + " " +c);
        System.out.println("d =" + " " +d);

    }
}
```

```
a = 1.7976931348623157E308
b = ▯
c = 65.0
d = A
```

```java
class Main {
    public static void main(String[] args) {          // OUTPUT ----->>>
        // double to double type casting
        double a = 1.7976931348623157E308;
        double b;
        b = a;
        System.out.println("a =" + " " +a);
        System.out.println("b =" + " " +b);
    }
}
```

```
a = 1.7976931348623157E308
b = 1.7976931348623157E308
```

BOOLEAN TO

```java
class Main {
  public static void main(String[] args) {
// boolean to float type casting
boolean a = true;
float b;
b = a;
boolean c = false;
float d;
d = c;
    System.out.println("a =" + " " +a);
     System.out.println("b =" + " " +b);
     System.out.println("c =" + " " +c);
     System.out.println("d =" + " " +d);
  }
}
```

// OUTPUT ----->>>

```
Main.java:6: error: incompatible types: boolean cannot be converted to float
   b = a;
       ^
Main.java:9: error: incompatible types: boolean cannot be converted to float
   d = c;
       ^
2 errors
```

```java
class Main {
  public static void main(String[] args) {
// boolean to long type casting
boolean a = true;
long b;
b = a;
boolean c = false;
long d;
d = c;
    System.out.println("a =" + " " +a);
     System.out.println("b =" + " " +b);
     System.out.println("c =" + " " +c);
     System.out.println("d =" + " " +d);
  }
}
```

// OUTPUT ----->>>

```
Main.java:6: error: incompatible types: boolean cannot be converted to long
   b = a;
       ^
Main.java:9: error: incompatible types: boolean cannot be converted to long
   d = c;
       ^
2 errors
```

```java
class Main {
  public static void main(String[] args) {
// boolean to int type casting
boolean a = true;
int b;
b = a;
boolean c = false;
int d;
d = c;
    System.out.println("a =" + " " +a);
     System.out.println("b =" + " " +b);
     System.out.println("c =" + " " +c);
     System.out.println("d =" + " " +d);
  }
}
```

// OUTPUT ----->>>

```
Main.java:6: error: incompatible types: boolean cannot be converted to int
   b = a;
       ^
Main.java:9: error: incompatible types: boolean cannot be converted to int
   d = c;
       ^
2 errors
```

```java
class Main {
  public static void main(String[] args) {
// boolean to short type casting
boolean a = true;
short b;
b = a;
boolean c = false;
short d;
d = c;
    System.out.println("a =" + " " +a);
     System.out.println("b =" + " " +b);
     System.out.println("c =" + " " +c);
     System.out.println("d =" + " " +d);
  }
}
```

// OUTPUT ----->>>

```
Main.java:6: error: incompatible types: boolean cannot be converted to short
   b = a;
       ^
Main.java:9: error: incompatible types: boolean cannot be converted to short
   d = c;
       ^
2 errors
```

```java
class Main {
  public static void main(String[] args) {
// boolean to byte type casting
boolean a = true;
byte b;
b = a;
boolean c = false;
byte d;
d = c;
    System.out.println("a =" + " " +a);
     System.out.println("b =" + " " +b);
     System.out.println("c =" + " " +c);
     System.out.println("d =" + " " +d);
  }
}
```

// OUTPUT ----->>>

```
Main.java:6: error: incompatible types: boolean cannot be converted to byte
   b = a;
       ^
Main.java:9: error: incompatible types: boolean cannot be converted to byte
   d = c;
       ^
2 errors
```

```java
class Main {
  public static void main(String[] args) {
// boolean to char type casting
boolean a = true;
char b;
b = a;
boolean c = false;
char d;
d = c;
    System.out.println("a =" + " " +a);
     System.out.println("b =" + " " +b);
     System.out.println("c =" + " " +c);
     System.out.println("d =" + " " +d);
  }
}
```

// OUTPUT ----->>>

```
Main.java:6: error: incompatible types: boolean cannot be converted to char
   b = a;
       ^
Main.java:9: error: incompatible types: boolean cannot be converted to char
   d = c;
       ^
2 errors
```

```
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // boolean to boolean type casting
  boolean a = true;
  boolean b;
  b = a;
  boolean c = false;
  boolean d;
  d = c;
    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);
  }
}
```

```
a = true
b = true
c = false
d = false
```

```
class Main {
  public static void main(String[] args) {          // OUTPUT ----->>>
  // boolean to double type casting
  boolean a = true;
  double b;
  b = a;
  boolean c = false;
  double d;
  d = c;
    System.out.println("a =" + " " +a);
    System.out.println("b =" + " " +b);
    System.out.println("c =" + " " +c);
    System.out.println("d =" + " " +d);
  }
}
```
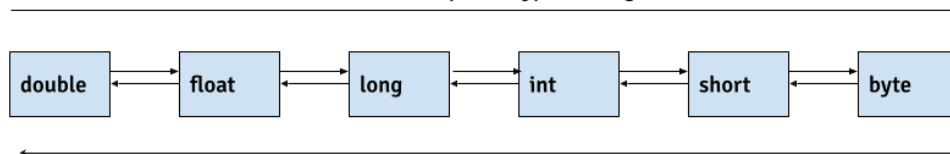
```
Main.java:6: error: incompatible types: boolean cannot be converted to double
  b = a;
      ^
Main.java:9: error: incompatible types: boolean cannot be converted to double
  d = c;
      ^
2 errors
```

Explicit Type Casting

double ↔ float ↔ long ↔ int ↔ short ↔ byte

Implicit Type Casting

	char	byte	short	int	long	float	double	boolean
char	-	✓	✓	✓	✓	✓	✓	✗
byte	✗	-	✓	✓	✓	✓	✓	✗
short	✗	✗	-	✓	✓	✓	✓	✗
int	✗	✗	✗	-	✓	✓	✓	✗
long	✗	✗	✗	✗	-	✓	✓	✗
float	✗	✗	✗	✗	✗	-	✓	✗
double	✗	✗	✗	✗	✗	✗	-	✗
boolean	✗	✗	✗	✗	✗	✗	✗	-

" ✓ ": Type casting is possible between the data types.

" ✗ ": Type casting is not possible between the data types.

"– ": Represents the same data type, so no casting is needed.