**1. Primitive → Wrapper Conversion**

Write a program to convert int, double, char into their corresponding wrapper objects (Integer, Double, Character).

**2. Wrapper → Primitive Conversion**

Unbox wrapper objects into primitives using methods like intValue(), doubleValue().

**3. Autoboxing Example**

Write a method that takes Integer but pass int and see autoboxing in action.

**4. Unboxing Example**

Write a method that takes int but pass Integer and see unboxing in action.

**5. Compare Wrappers**

Compare two Integer objects using both == and .equals(). Explain the difference.

**6. ValueOf Method**

Use Integer.valueOf("123") to convert a string into integer. Try invalid input.

**7. ParseXXX Methods**

Convert "123" into int using Integer.parseInt(). Also check for "123abc".

**8. Max & Min**

Use Integer.MAX\_VALUE and Integer.MIN\_VALUE to print range.

**9. String to Wrapper**

Convert "true" to Boolean and "3.14" to Double.

**10. Wrapper Caching**

Check whether Integer a = 127; Integer b = 127; returns true with ==. Then try with 128.

**11. Wrapper in Collections**

Add primitive values in a List<Integer> and see autoboxing.

**12. Wrapper + Arithmetic**

Perform addition of two Integer objects and print results.

**13. Null Wrapper Unboxing**

Assign Integer x = null; int y = x; and check exception.

**14. Wrapper Methods**

Use Character.isDigit(), Character.isLetter(), Character.toUpperCase().

**15. Custom Wrapper Demo**

Create a class MyWrapper that wraps around int and provides add(), subtract().

**📝 Assignments on Exception Handling**

**1. Division by Zero**

Write a program that catches ArithmeticException when dividing by zero.

**2. Array Index Out of Bounds**

Access an array element beyond its size and handle exception.

**3. Multiple Catch Blocks**

Handle different exceptions in separate catch blocks.

**4. Finally Block**

Write code with try-catch-finally and prove finally always executes.

**5. Nested Try**

Demonstrate nested try-catch with division and array access.

**6. Throw Example**

Throw your own ArithmeticException if number < 0.

**7. Throws Example**

Create a method that throws IOException and handle it in main.

**8. Custom Exception**

Write InvalidAgeException for voting eligibility.

**9. Try with Resources**

Read a file using try-with-resources.

**10. Propagation**

Write methods a() → b() → c() and throw an exception from c(). Observe propagation.

**11. Checked vs Unchecked**

Give examples for both checked and unchecked exceptions.

**12. Multiple Exceptions in One Catch**

Use catch(Exception | ArithmeticException e) style.

**13. Rethrow Exception**

Catch an exception, log it, and rethrow it.

**14. NullPointer Handling**

Try calling method on a null reference and handle exception.

**15. Exception Hierarchy**

Print stack trace for different exception types.