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**BASIC LEVEL (1-7)**

1. public class PrimitiveDataTypes {

public static void main(String[] args) {

byte byteVar = 100;

short shortVar = 30000;

int intVar = 100000;

long longVar = 10000000000L;

// Floating point types

float floatVar = 5.75f

double doubleVar = 19.99;

// Character type

char charVar = 'A';

// Boolean type

boolean booleanVar = true;

// Printing all values

System.out.println("byte value: " + byteVar);

System.out.println("short value: " + shortVar);

System.out.println("int value: " + intVar);

System.out.println("long value: " + longVar);

System.out.println("float value: " + floatVar);

System.out.println("double value: " + doubleVar);

System.out.println("char value: " + charVar);

System.out.println("boolean value: " + booleanVar);

}

}

public class SumOfTwoIntegers {

public static void main(String[] args) {

int num1 = 10;

int num2 = 20;

int sum = num1 + num2;

System.out.println("First number: " + num1);

System.out.println("Second number: " + num2);

System.out.println("Sum: " + sum);

}

}

1. public class SwapUsingThirdVariable {

public static void main(String[] args) {

int a = 5;

int b = 10;

System.out.println("Before swapping:")

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

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

int temp = a;

a = b;

b = temp;

System.out.println("After swapping:");

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

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

}

}

1. public class SwapWithoutThirdVariable {

public static void main(String[] args) {

int a = 5;

int b = 10;

System.out.println("Before swapping:");

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

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

a = a + b; // a becomes 15

b = a - b; // b becomes 5 (15 - 10)

a = a - b; // a becomes 10 (15 - 5)

System.out.println("After swapping:");

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

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

}

}

1. public class AsciiValue {

public static void main(String[] args) {

char ch = 'A';

int ascii = (int) ch;

System.out.println("The ASCII value of '" + ch + "' is: " + ascii);

}

}

1. import java.util.Scanner;

public class NumberCheck {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number: ");

int number = scanner.nextInt();

if (number > 0) {

System.out.println("The number is positive.");

} else if (number < 0) {

System.out.println("The number is negative.");

} else {

System.out.println("The number is zero.");

}

}

1. public class DefaultValues {

byte b;

short s;

int i;

long l;

float f;

double d;

char c;

boolean bool;

String str;

void printDefaults() {

System.out.println("Default byte: " + b);

System.out.println("Default short: " + s);

System.out.println("Default int: " + i);

System.out.println("Default long: " + l);

System.out.println("Default float: " + f);

System.out.println("Default double: " + d);

System.out.println("Default char: [" + c + "]"); // May appear empty

System.out.println("Default boolean: " + bool);

System.out.println("Default String: " + str); // null

}

public static void main(String[] args) {

DefaultValues obj = new DefaultValues();

obj.printDefaults();

}

}