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**CLASS: AINT-2A**

**1.Try to declare meaningful variables of each type. Eg - a variable named age should be a numeric type (int or float) not byte.**

1. public class VariableTypes {
2. public static void main(String[] args) {
3. // Numeric types
4. int age = 25;
5. double height = 5.8;
6. float temperature = 98.6f;
7. long population = 789\_000\_000L;
9. // Textual types
10. String name = "John Doe";
11. char gender = 'M';
13. // Boolean type
14. boolean isStudent = true;
16. // Arrays
17. int[] numbers = {1, 2, 3, 4, 5};
18. String[] colors = {"Red", "Green", "Blue"};
20. // Printing values
21. System.out.println("Age: " + age);
22. System.out.println("Height: " + height);
23. System.out.println("Temperature: " + temperature);
24. System.out.println("Population: " + population);
25. System.out.println("Name: " + name);
26. System.out.println("Gender: " + gender);
27. System.out.println("Is Student: " + isStudent);
28. System.out.println("Numbers: " + java.util.Arrays.toString(numbers));
29. System.out.println("Colors: " + java.util.Arrays.toString(colors));
30. }
31. }

**2.Make a program that takes the radius of a circle as input, calculates its radius and area and prints it as output to the user.**

**import java.util.Scanner;**

**public class CircleCalculator {**

**public static void main(String[] args) {**

**Scanner scanner = new Scanner(System.in);**

**// Take input for radius**

**System.out.print("Enter the radius of the circle: ");**

**double radius = scanner.nextDouble();**

**// Calculate circumference and area**

**double circumference = 2 \* Math.PI \* radius;**

**double area = Math.PI \* radius \* radius;**

**// Display output**

**System.out.println("The circumference of the circle is: " + circumference);**

**System.out.println("The area of the circle is: " + area);**

**scanner.close();**

**}**

**}**

**3.Make a program that prints the table of a number that is input by the user.**

**(HINT - You will have to write 10 lines for this but as we proceed in the course you will be studying about ‘LOOPS’ that will simplify your work A LOT!)**

**import java.util.Scanner;**

**public class NumberTable {**

**public static void main(String[] args) {**

**Scanner scanner = new Scanner(System.in);**

**// Take input for the number**

**System.out.print("Enter a number to print its table: ");**

**int number = scanner.nextInt();**

**// Calculate and print the table**

**System.out.println("Table of " + number + ":");**

**System.out.println(number + " x 1 = " + (number \* 1));**

**System.out.println(number + " x 2 = " + (number \* 2));**

**System.out.println(number + " x 3 = " + (number \* 3));**

**System.out.println(number + " x 4 = " + (number \* 4));**

**System.out.println(number + " x 5 = " + (number \* 5));**

**System.out.println(number + " x 6 = " + (number \* 6));**

**System.out.println(number + " x 7 = " + (number \* 7));**

**System.out.println(number + " x 8 = " + (number \* 8));**

**System.out.println(number + " x 9 = " + (number \* 9));**

**System.out.println(number + " x 10 = " + (number \* 10));**

**scanner.close();**

**}**

**}**

**4.Write a program that take input from user as year and convert it into Month and Days and display them.(Use float)**

**import java.util.Scanner;**

**public class YearToMonthsDays {**

**public static void main(String[] args) {**

**Scanner scanner = new Scanner(System.in);**

**// Take input for the number of years**

**System.out.print("Enter the number of years: ");**

**float years = scanner.nextFloat();**

**// Calculate months and days**

**float months = years \* 12;**

**float days = years \* 365.25f;**

**// Display converted months and days**

**System.out.println(years + " years is approximately equal to:");**

**System.out.println("Months: " + months);**

**System.out.println("Days: " + days);**

**scanner.close();**

**}**

**}**

**5.Write a program which convert Celsius to Fahrenheit which will take value from user.**

**import java.util.Scanner;**

**public class CelsiusToFahrenheit {**

**public static void main(String[] args) {**

**Scanner scanner = new Scanner(System.in);**

**// Take input for temperature in Celsius**

**System.out.print("Enter temperature in Celsius: ");**

**double celsius = scanner.nextDouble();**

**// Convert Celsius to Fahrenheit**

**double fahrenheit = (celsius \* 9 / 5) + 32;**

**// Display converted temperature in Fahrenheit**

**System.out.println(celsius + " Celsius is equal to " + fahrenheit + " Fahrenheit.");**

**scanner.close();**

**}**

**}**