WEEK 2 PRACTICE QUESTIONS

1. Write a program to create a basic calculator that can perform addition, subtraction, multiplication, and division. The program should ask for two numbers (floating point) and perform all the operations

solution:

```
import java.util.Scanner;

class Calc{
	public static void main(String[] args){
		Scanner input = new Scanner(System.in);

		double number1, number2;

		System.out.println("Enter Number 1: ");
		number1 = input.nextDouble();

		System.out.println("Enter Number 2: ");
		number2 = input.nextDouble();

		double sum = number1 + number2;
		double difference = number1 - number2;
		double product = number1 * number2;
		double divide = number1 / number2;

		System.out.println("Sum : "+sum+"\nDifference : "+difference+"\nProduct :
"+product+"\nDivide : "+divide);
	}
}
```

2. Write a program that takes the base and height to find area of a triangle in square inches and square centimeters.

Solution:

```
import java.util.Scanner;

class AreaOfTriangle{
	public static void main(String[] args){
		Scanner input = new Scanner(System.in);

		double height,base;

		System.out.println("Enter height: ");
		height = input.nextDouble();

		System.out.println("Enter base: ");
		base = input.nextDouble();

		double area = 0.5*height*base;

		System.out.println("Area of triangle : "+area);
	}
}
```

3. Write a program to find the side of the square whose perimeter you read from

user Solution:

```
import java.util.Scanner;

class PerimeterOfSquare{
	public static void main(String[] args){
		Scanner input = new Scanner(System.in);

		System.out.println("Side of Square: ");
		double side = input.nextDouble();
		double perimeter = 4*side;

		System.out.println("Perimeter Of Square is: "+perimeter);
	}
}
```

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4. Write a program the find the distance in yards and miles for the distance provided by user in feets

Solution:

```
import java.util.Scanner;


class YardAndMiles{
	public static void main(String[] args){
		Scanner input = new Scanner(System.in);


		System.out.println("Distance in Feet: ");
		double feet = input.nextDouble();
		double yards = feet/3;
		double miles = yards/1760;


		System.out.println("Distance in Yards: "+yards+"\nDistance in Miles: "+miles);
	}
}
```

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5. Write a program to input the unit price of an item and the quantity to be bought. Then, calculate the total price.

Solution:

```
import java.util.Scanner;

class TotalPrice{
	public static void main(String[] args){
		Scanner input = new Scanner(System.in);

		double unitPrice, quantity;

		System.out.println("Enter Price of 1 Unit: ");
		unitPrice = input.nextDouble();

		System.out.println("Enter Quantity: ");
		quantity = input.nextDouble();

		double totalPrice = unitPrice*quantity;

		System.out.println("Total Price is "+totalPrice);
	}
}
```

6. Write a program to take 2 numbers and print their quotient and reminder

Solution:

```
import java.util.Scanner;

class Division{
	public static void main(String[] args){
		Scanner input = new Scanner(System.in);

		double number1, number2;

		System.out.println("Enter Number 1: ");
		number1 = input.nextDouble();

		System.out.println("Enter Number 2: ");
		number2 = input.nextDouble();

		double quotient = number1 / number2;
		double remainder = number1 % number2;

		System.out.println("Quotient : "+(int)(quotient)+"\nRemainder :
"+(int)(remainder));
	}
}
```

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7. Write an ***IntOperation*** program by taking a, b, and c as input values and print the following integer operations a + b *c, a * b + c, c + a / b, and a % b + c. Please also understand the precedence of the operators.

Solution:

```
import java.util.Scanner;

class IntOpt{
	public static void main(String[] args){
		Scanner input = new Scanner(System.in);

		int a, b, c;

		System.out.println("Enter Number 1: ");
		a = input.nextInt();

		System.out.println("Enter Number 2: ");
		b = input.nextInt();

		System.out.println("Enter Number 3: ");
		c = input.nextInt();

		int operator1 = a + b * c;
		int operator2 = a * b + c;
		int operator3 = c + a / b;
		int operator4 = a % b + c;
```

```
                System.out.println("Operation 1: "+operator1);
                System.out.println("Operation 2: "+operator2);
                System.out.println("Operation 3: "+operator3);
                System.out.println("Operation 4: "+operator4);
        }
}
```

8. Similarly, write the ***DoubleOpt*** program by taking double values and doing the same operations.

Solution:

```
import java.util.Scanner;

class DoubleOpt{
	public static void main(String[] args){
		Scanner input = new Scanner(System.in);

		double a, b, c;

		System.out.println("Enter Number 1: ");
		a = input.nextDouble();

		System.out.println("Enter Number 2: ");
		b = input.nextDouble();

		System.out.println("Enter Number 3: ");
		c = input.nextDouble();

		double operator1 = a + b * c;
		double operator2 = a * b + c;
		double operator3 = c + a / b;
		double operator4 = a % b + c;

		System.out.println("Operation 1: "+operator1);
		System.out.println("Operation 2: "+operator2);
		System.out.println("Operation 3: "+operator3);
		System.out.println("Operation 4: "+operator4);
	}
}
```