FUNCTION PROBLEMS

Easy Function Problems

Calculate area of circle

```
Write a function circleArea(radius) that calculates area of circle
Input: 5
```

1. `Output: 78.54`

Check if number is even

```
Write a function isEven(n) that checks if number is even
Input: 8
```

2. `Output: true`

Convert Celsius to Fahrenheit

```
Write a function celToFah(celsius) that converts temperature
Input: 25
```

3. `Output: 77`

Find maximum of two numbers

```
Write a function max(a, b) that returns maximum of two numbers
Input: 15, 23
```

4. `Output: 23`

Calculate simple interest

```
Write a function simpleInterest(p, r, t) that calculates simple
interest
Input: 1000, 5, 2
```

5. `Output: 100`

Check if string is empty

```
Write a function isEmpty(str) that checks if string is empty
Input: ""
```

6. `Output: true`

Calculate age from birth year

```
Write a function calculateAge(birthYear) that calculates current age
Input: 1995
```

7. `Output: 30`

Find absolute value

```
Write a function absolute(n) that returns absolute value
Input: -15
```

8. `Output: 15`

Calculate rectangle area

```
Write a function rectArea(length, width) that calculates rectangle area
Input: 8, 5
```

9. `Output: 40`

Check if number is positive

```
Write a function isPositive(n) that checks if number is positive
Input: 7
```

10. `Output: true`

Medium Function Problems

Calculate compound interest

```
Write a function compoundInterest(p, r, t, n) that calculates compound interest
Input: 1000, 5, 2, 4
```

1. `Output: 104.49`

Find power of number

```
Write a function power(base, exp) that calculates base raised to exponent
Input: 2, 8
```

2. `Output: 256`

Check palindrome

```
Write a function isPalindrome(str) that checks if string is palindrome
Input: "racecar"
```

3. `Output: true`

Calculate BMI

```
Write a function calculateBMI(weight, height) that calculates BMI
Input: 70, 1.75
```

4. `Output: 22.86`

Generate random number in range

```
Write a function randomRange(min, max) that generates random number
Input: 10, 50
```

5. `Output: 23 (random between 10-50)`

Count words in string

```
Write a function countWords(str) that counts words in string
Input: "Hello world programming"
```

6. `Output: 3`

Calculate distance between points

```
Write a function distance(x1, y1, x2, y2) that calculates distance
Input: 0, 0, 3, 4
```

7. `Output: 5`

Convert seconds to hours, minutes, seconds

```
Write a function convertTime(seconds) that converts to h:m:s format
Input: 3665
```

8. `Output: "1:1:5"`

Find LCM of two numbers

```
Write a function lcm(a, b) that finds least common multiple
Input: 12, 18
```

9. `Output: 36`

Validate email format

```
Write a function isValidEmail(email) that validates email format
Input: "user@example.com"
```

10. `Output: true`