# Mohamed Khider University – Biskra
# Department of Computer Science
# 1st Year Computer Science - Practical Work 3-Solutions-

## Exercise 1:

```
# Ask the user for two integers
a = int(input("Enter the first integer: "))
b = int(input("Enter the second integer: "))

# Calculations
sum_result = a + b
difference = a - b
product = a * b
division = a / b
remainder = a % b
power = a ** b
integer_division = a // b

# Display results
print(f"Sum: {sum_result}")
print(f"Subtraction: {difference}")
print(f"Multiplication: {product}")
print(f"Division: {division}")
print(f"Remainder: {remainder}")
print(f"Power: {power}")
print(f"Integer division: {integer_division}")
```

## Exercise 2:

```
# Ask the user to enter two numbers
a = int(input("Enter first number (a): "))
b = int(input("Enter second number (b): "))

# Part 1: if / else
if a > b:
    print("a is greater than b")
else:
    print("a is less than or equal to b")

# Part 2: if / elif / else
if a > 0:
```

```
    print("a is positive")
elif a < 0:
    print("a is negative")
else:
    print("a is zero")

# Part 3: Logical operators (and, or, not)
if a > 5 and b > 5:
    print("Both are greater than 5")
elif a > 5 or b > 5:
    print("At least one is greater than 5")
else:
    print("Neither is greater than 5")
```

# Exercise 3:

```
n = int(input("Enter a number n: "))

# 1. Print numbers from 1 to n
print("Numbers from 1 to n:")
for i in range(1, n+1):
    print(i, end=" ")
print()

# 2. Sum of even and odd numbers
sum_even = 0
sum_odd = 0
for i in range(1, n+1):
    if i % 2 == 0:
        sum_even += i
    else:
        sum_odd += i
print(f"Sum of even numbers: {sum_even}")
print(f"Sum of odd numbers: {sum_odd}")

# 3. Number of divisors of n
divisor_count = 0
for i in range(1, n+1):
    if n % i == 0:
        divisor_count += 1
print(f"Number of divisors of {n}: {divisor_count}")
```