

Fakultas Ilmu Komputer, Universitas Indonesia
Foundations of Programming 2
Worksheet 03 – 16.03.2023

1. Consider the following code fragment:

```
Circle c1 = new Circle(25);  
Circle c2 = new Circle(25);  
boolean condition = (c1 == c2);
```

What is the value of `condition`? Explain.

- A) true B) The code has a syntax error and will not compile.
C) false D) 3

2. What does the following statement do?

```
double[] array1 = new double[10];
```

- a. Declares array1 to be a reference to an array of double values
- b. Creates an instance of an array of 10 double values
- c. Will allow valid subscripts in the range of 0 - 9
- d. All of the above

3. What would be the results of the following code?

```
int[] array1 = new int[25];  
... // Code that will put values in array1  
int value = array1[0];  
for (int a = 1; a < array1.length; a++){  
    if (array1[a] < value)  
        value = array1[a];  
}
```

- a. **value** contains the highest value in array1
- b. **value** contains the lowest value in array1
- c. **value** contains the sum of all the values in array1
- d. **value** contains the average of the values in array1

4. Find all the output printed by this program and explain which statement(s) the output comes from.

```
class BankAccount {
    public BankAccount(){
        this("ABC", 0);
        System.out.println("Panggil BankAccount()");
    }
    public BankAccount(String name, int balance) {
        System.out.println("Panggil BankAccount("+name+", "+balance+"");
        this.name = name; this.balance = balance;
    }
    public void deposit(int amount) {
        balance = balance + amount;
    }
    public void withdraw(int amount) {
        if (balance >= amount) balance = balance - amount;
        System.out.println("Balance: " + balance);
    }
    public void cetakInfo() {
        System.out.println(name + " punya saldo " + balance);
    }
    private String name;
    private int balance;
}

public class TestBankAccount {
    public static void main(String[] args){

        BankAccount[] bank = new BankAccount[20]; //statement 1
        bank[0] = new BankAccount( "Arjuno", 1000); //statement 2
        bank[1] = new BankAccount(); //statement 3
        bank[0].withdraw(700); //statement 4
        bank[1].withdraw(500); //statement 5
        bank[1].deposit(200); //statement 6
        bank[0].cetakInfo(); //statement 7
        bank[1].cetakInfo(); //statement 8
    }
}
```

Answer:

5. What is a **package** in Java?