Kelas: SE-48-03
Anggota Kelompok:

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*sesuai kesepakatan dikelas, array pseudocode menggunakan index 1 bukan 0.

No	Pseudocode

1	Program Nilai
	Kamus
	result : string
	totalStudent, highestStudent, i : integer
	scoreStudent : array
	Algoritma
	input(totalStudent)
	scoreStudent ← new int[totalStudent]
	highestStudent ← 0
	
	FOR (i ← 1 TO totalStudent) DO
	input(scoreStudent[i])
	IF (scoreStudent[i] > highestStudent) THEN
	highestStudent ← scoreStudent[i]
	END IF
	END FOR
	
	FOR i ← 1 TO totalStudent DO
	result ← "F"
	IF (scoreStudent[i] >= highestStudent) THEN
	result ← "A"
	ELSE IF (scoreStudent[i] >= highestStudent - 5) THEN
	result ← "B"
	ELSE IF (scoreStudent[i] >= highestStudent - 10) THEN
	result ← "C"
	ELSE IF (scoreStudent[i] >= highestStudent - 15) THEN
	result ← "D"
	ELSE IF (scoreStudent[i] >= highestStudent - 20) THEN
	result ← "E"
	END IF
	output("Mahasiswa ", i, " memiliki nilai ", scoreStudent[i], " dan mendapat nilai ", result)
	END FOR
	
	Endprogram

2

```
Program Nilai
Kamus
        result : string
        i : integer
        inputScore : array
Algoritma
        inputScore ← new int[11]

        FOR i ← 1 TO 11 DO
                input(inputScore[i])
        END FOR

        FOR i ← 1 TO 11 DO
                result ← "sama dengan"
                IF (inputScore[i] > inputScore[11]) THEN
                        result ← "lebih besar"
                ELSE IF (inputScore[i] < inputScore[11]) THEN
                        result ← "lebih kecil"
                END IF

                output("\nBilangan ke-", i, " ", result, " dari bilangan ke-11")
        END FOR

Endprogram
```

3

```
Program Membaca Nilai
Kamus
        userInput, userInputArray : array
        numberCount, currentNumber, i : integer
Algoritma
        input(userInput.split(" "))
        userInputArray ← new int[userInput.length]

        FOR i ← 1 TO userInput.length DO
                userInputArray[i] ← Integer.parseInt(userInput[i])
                IF (userInputArray[i] < 0 || userInputArray[i] > 50) THEN
                        output("Invalid input.")
                        return
                END IF
        END FOR

        userInputArray ← Arrays.sort(userInputArray)

        numberCount ← 0
        currentNumber ← -1

        FOR i ← 1 TO userInput.length DO
                IF (currentNumber != userInputArray[i] AND currentNumber != -1) THEN
                        output(currentNumber, " muncul ", numberCount, " kali")
                        numberCount ← 0
                END IF

                currentNumber ← userInputArray[i]
                numberCount++
        END FOR

        output(currentNumber, " muncul ", numberCount, " kali")
Endprogram
```

4

```
Program Bilangan Prima
Kamus
        n, i, multipliedNumber : integer
        primeNumber : array of boolean
Algoritma
        n ← 50
        primeNumber ← new boolean[n + 1]
        Arrays.fill(primeNumber, true)
        primeNumber[1] ← false

        FOR i ← 2 TO n DO
                IF (i * i > n) THEN
                        BREAK
                END IF
                IF (primeNumber[i]) THEN
                        multipliedNumber ← i
```

```
                        FOR multipliedNumber ← i * 2 TO n DO
                                primeNumber[multipliedNumber] ← false
                                multipliedNumber += i
                        END FOR
                END IF
        END FOR

        FOR i ← 2 TO n DO
                IF (primeNumber[i]) THEN
                        output(i, " ")
                END IF
        END FOR
Endprogram
```