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1IA16

Debugging

Soal 3

Nilai k: 42

Soal 2

Nilai b: 41

Soal 3

Jumlah looping: 4 kali

Soal 4

Nilai array: [138, 24, 138, 46, 46, 46, 1304, 1952, 1814, 1676, 1538, 1400, 1354, 1308, 4]

Soal 5

Nilai array: [19, 11, 7, 15, 16, 17, 18, 4, 4, 7, 8, 8, 8, 9, 10]

Soal 6

Jumlah "Hello": 1997 kali

Soal 7

Jumlah "Hello": 1999 kali

Soal 8

Return value: 37

Soal 9

Return value: 4

Soal 10

Legal/Ilegal: Ilegal (final int k = 4; tidak bisa diubah dengan ++k)

Soal 11

Kesalahan kode:

➢ nextLine() seharusnya nextInt()
➢ nilai % 2 = sisa; salah, seharusnya sisa = nilai % 2;
➢ case 0; dan default; salah, seharusnya case 0: dan default:
➢ System.out.println(genap); seharusnya pakai tanda kutip "genap"

Soal 12

Nilai num = 20

Nilai k = 18

```
int num = 1;
int k = num + 9 * ++num - 1;
if (num > 0) {
    if (num < 10) {
        num *= 10;
    } else {
        num = (k += 2) + 3;
    }
} else {
    k /= 10 + --num;
}
```

Live Coding

Soal 1

```java
import java.util.*;

public class lc {

    public static void main(String[] args) {
```

```java
        String input = "aku seorang bajak laut di tengah laut
Somalia, sedang merompak kapal para penjajah Afrika.\n"
                + "Namun aku takut dengan seorang penjajah dari
Afrika keturunan India.";

        input = input.replaceAll("[^a-zA-Z ]", "").toLowerCase();
        String[] words = input.split("\\s+");

        Map<String, Integer> freq = new LinkedHashMap<>();
        for (String word : words) {
            freq.put(word, freq.getOrDefault(word, 0) + 1);
        }

        int max = Collections.max(freq.values());

        for (Map.Entry<String, Integer> entry : freq.entrySet())
{
            System.out.println(entry.getKey() + " : " +
entry.getValue());
        }

        System.out.println("\nKata terbanyak:");
        for (Map.Entry<String, Integer> entry : freq.entrySet())
{
            if (entry.getValue() == max) {
                System.out.println("- " + entry.getKey());
            }
        }
    }
}
```

Output:

```
aku : 2
seorang : 2
bajak : 1
laut : 2
di : 1
tengah : 1
somalia : 1
sedang : 1
merompak : 1
kapal : 1
para : 1
penjajah : 2
afrikanamun : 1
takut : 1
dengan : 1          Kata terbanyak:
dari : 1            - aku
afrika : 1          - seorang
keturunan : 1       - laut
india : 1           - penjajah
```

Soal 2

```java
public class lc2 {

    public static void main(String[] args) {
        int N = 5;
        int num = 1;

        for (int i = 0; i < N; i++) {
            int[] row = new int[N];
            for (int j = 0; j < N; j++) {
                row[j] = num++;
            }
```

```java
            if (i % 2 != 0) {
                for (int j = N - 1; j >= 0; j--) {
                    System.out.printf("%02d ", row[j]);
                }
            } else {
                for (int j = 0; j < N; j++) {
                    System.out.printf("%02d ", row[j]);
                }
            }
            System.out.println();
        }
    }
}
```

Output :

```
01 02 03 04 05
10 09 08 07 06
11 12 13 14 15
20 19 18 17 16
21 22 23 24 25
```

Soal 3

```java
public class lc3 {

    public static void main(String[] args) {
        String input = "pemrogramanDasarJava1";

        int uppercase = 0, lowercase = 0, digit = 0, symbol = 0;

        for (char ch : input.toCharArray()) {
```

```java
            if (Character.isUpperCase(ch)) {
                uppercase++;
            } else if (Character.isLowerCase(ch)) {
                lowercase++;
            } else if (Character.isDigit(ch)) {
                digit++;
            } else {
                symbol++;
            }
        }

        System.out.println("uppercase : " + uppercase);
        System.out.println("lowercase : " + lowercase);
        System.out.println("angka : " + digit);
        System.out.println("symbol : " + symbol);
    }
}
```

Output :

```
uppercase : 2
lowercase : 18
angka : 1
symbol : 0
```

Soal 1

```java
public class soal1 {

    Run | Debug | Run main | Debug main
    public static void main(String[] args) {
        int n = 10;

        while (n > 0) {
            System.out.println(x:"tik");
            n--;
        }
    }
}
```

```
tik
tik
tik
tik
tik
tik
tik
tik
tik
tik
```

Soal 2

```java
public class soal2_TubuhWhileKosong {

    Run | Debug | Run main | Debug main
    public static void main(String[] args) {
        int i, j;
        i = 100;
        j = 200;

        while (++i < --j) ;

        System.out.println("Titik-tengah adalah "
    }
}
```

PROBLEMS 3   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
PS C:\Users\Sheva Meazza\OneDrive\Documents\Gunadarma\AP2\AP2A\MATKUL\vclass-m9>  &
ailsInExceptionMessages' '-cp' 'C:\Users\Sheva Meazza\AppData\Roaming\Code\User\wor
_ws\vclass-m9_9fde7219\bin' 'soal2_TubuhWhileKosong'
Titik-tengah adalah 150
PS C:\Users\Sheva Meazza\OneDrive\Documents\Gunadarma\AP2\AP2A\MATKUL\vclass-m9>
```

Soal 3

```java
import java.util.Scanner;

public class soal3_DemoWhileBaca {

    Run | Debug | Run main | Debug main
    public static void main(String[] args) {
        int kounter, angka;

        System.out.println(x:"Masukkan sebuah angka");
        Scanner papantik = new Scanner(System.in);

        angka = papantik.nextInt();
        kounter = 1;

        while (kounter <= angka) {
            System.out.println(kounter + ", ");
            kounter++;
        }

        System.out.println();
        System.out.println(x:"Hidup Brokoli!.");
    }
}
```

```
Masukkan sebuah angka
3
1,
Masukkan sebuah angka
3
1,
3
1,
1,
2,
3,
```

Soal 4

```java
public class soal4_WhileUntukFibonacci {

    Run | Debug | Run main | Debug main
    public static void main(String[] args) {
        System.out.println(x:0);

        int fib0 = 0;
        int fib1 = 1;
        int fib2 = fib1 + fib0;

        while (fib2 < 1000) {
            fib0 = fib1;
            fib1 = fib2;
            fib2 = fib1 + fib0;
            System.out.print(", " + fib1);
        }
    }
}
```

```
0
, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987
```

Soal 5

```java
import java.util.Random;

public class soal5_WhilePrima {

    Run | Debug | Run main | Debug main
    public static void main(String[] args) {
        Random acak = new Random();
        float x = acak.nextFloat();

        System.out.println("x = " + x);
        int n = (int) Math.floor(101 * x);
        boolean apaPrima = (n > 1);
        int d = 2;

        while (apaPrima && d < n) {
            apaPrima = (n % d++ != 0);
        }

        if (apaPrima) {
            System.out.println(n + " adalah prima.");
        } else {
            System.out.println(n + " bukan prima.");
        }
    }
}
```

```
x = 0.104952216
10 bukan prima.
```

Soal 6

```java
import java.util.Random;

public class soal6_WhileLogaritmaDiskrit {

    // Run | Debug | Run main | Debug main
    public static void main(String[] args) {
        Random acak = new Random();

        float x = acak.nextFloat();
        x = 999999 * x + 2;
        int y = 0;
        int n = 1;

        while (n <= x) {
            n *= 2;
            ++y;
            System.out.println("n= " + n + "\ty = " + y);
        }

        --y;
        System.out.println(" x: " + x);
        System.out.println("Logaritma biner diskrit atas x: " + y);
        float lgx = (float) (Math.log(x) / Math.log(a:2.0));
        System.out.println("Logaritma biner kontinya atas x: " + lgx);
    }
}
```

```
n= 2     y = 1
n= 4     y = 2
n= 8     y = 3
n= 16    y = 4
n= 32    y = 5
n= 64    y = 6
n= 128   y = 7
n= 256   y = 8
n= 512   y = 9
n= 1024  y = 10
n= 2048  y = 11
n= 4096  y = 12
n= 8192  y = 13
n= 16384        y = 14
n= 32768        y = 15
n= 65536        y = 16
n= 131072       y = 17
n= 262144       y = 18
n= 524288       y = 19
 x: 511448.1
Logaritma biner diskrit atas x: 18
Logaritma biner kontinya atas x: 18.964228
```

Soal 7

```java
import java.util.Random;

public class soal7_WhileGCD {

    // Run | Debug | Run main | Debug main
    public static void main(String[] args) {
        Random acak = new Random();

        float x = acak.nextFloat();
        int m = Math.round(999 * x + 2);
        x = acak.nextFloat();
        int n = Math.round(999 * x + 2);
        System.out.println("m= " + m + "\t\t n= " + n);

        while (m > 0) {
            if (m < n) {
                int temp = m;
                m = n;
                n = temp;
                System.out.println("m= " + m + "\t\t n= " + n);
            }
            m -= n;
        }
        System.out.println("GCD atas m dan n adalah " + n);
    }
}
```

```
m= 106          n= 375
m= 375          n= 106
m= 106          n= 57
m= 57           n= 49
m= 49           n= 8
m= 8            n= 1
GCD atas m dan n adalah 1
```

Soal 8

```java
public class soal8_DemoDoWhile {

    // Run | Debug | Run main | Debug main
    public static void main(String args[]) {
        int n = 10;

        do {
            System.out.println("tik " + n);
            n--;
        } while (n > 0);
    }
}
```

```
tik 10
tik 9
tik 8
tik 7
tik 6
tik 5
tik 4
tik 3
tik 2
tik 1
```

Soal 9

```java
public class soal9_DoWhileUntukMenu {

    Run | Debug | Run main | Debug main
    public static void main(String args[])
            throws java.io.IOException {

        char pilihan;
        do {
            System.out.println(x:"Silahkan pilih:");
            System.out.println(x:" 1. if");
            System.out.println(x:" 2. switch");
            System.out.println(x:" 3. while");
            System.out.println(x:" 4. do-while");
            System.out.println(x:" 5. for\n");
            System.out.println(x:" Pilih satu:");

            pilihan = (char) System.in.read();
        } while (pilihan < '1' || pilihan > '5');

        System.out.println(x:"\n");

        switch (pilihan) {
            case '1':
                System.out.println(x:"Statemen if:\n");
                System.out.println(x:"if (kondisi) statemen;");
                System.out.println(x:"else statemen;");
                break;

            case '2':
                System.out.println(x:"Statemen switch:\n");
                System.out.println(x:"switch (ekspresi) (");
                System.out.println(x:" case konstanta:");
                System.out.println(x:" runtun statemen");
                System.out.println(x:" break;");
                System.out.println(x:" //  ...");
                System.out.println(x:")");
                break;

            case '3':
                System.out.println(x:"Loop while:\n");
                System.out.println(x:"while (kondisi) statemen;");
                break;
            case '4':
                System.out.println(x:"Loop do-while:\n");
                System.out.println(x:"do {");
                System.out.println(x:" statemen;");
                System.out.println(x:") while (kondisi);");
                break;
            case '5':
                System.out.println(x:"Loop for: \n");
                System.out.print(s:"for (inisialisasi; kondisi; iterasi)");
                System.out.println(x:" statemen;");
                break;
        }
    }
}
```

```
Silahkan pilih:
 1. if
 2. switch
 3. while
 4. do-while
 5. for

 Pilih satu:
1


Statemen if:

if (kondisi) statemen;
else statemen;
```

Soal 10

```java
1   import java.util.Scanner;
2
3   public class soal10_DoWhileBaca {
4
        Run | Debug | Run main | Debug main
5       public static void main(String[] args) {
6           int kounter, angka;
7
8           System.out.println(x:"Masukkan sebuah angka");
9           Scanner papantik = new Scanner(System.in);
10          angka = papantik.nextInt();
11          kounter = 1;
12
13          do {
14              System.out.print(kounter + ", ");
15              kounter++;
16          } while (kounter ≤ angka);
17
18          System.out.println();
19          System.out.println(x:"Hidup Indonesia!");
20      }
```

```
Masukkan sebuah angka
2
1, 2,
Hidup Indonesia!
```

Soal 11

```java
1   import java.util.Random;
2
3   public class soal11_DoWhileFaktorial {
4
        Run | Debug | Run main | Debug main
5       public static void main(String[] args) {
6           Random acak = new Random();
7
8           float x = acak.nextFloat();
9           int n = Math.round(21 * x);
10          long f = 1;
11          int k = 1;
12
13          do {
14              f *= k++;
15          } while (k ≤ n);
16
17          System.out.println(n + " ! = " + f);
18      }
19  }
```

```
3 ! = 6
```

Soal 12

```java
1   import java.util.Random;
2
3   public class soal12_DoWhilePrima {
4
        Run | Debug | Run main | Debug main
5       public static void main(String[] args) {
6           Random acak = new Random();
7
8           float x = acak.nextFloat();
9           System.out.println("x= " + x);
10          int n = Math.round(97 * x + 2);
11          boolean apaPrima;
12          int d = 2;
13
14          do {
15              apaPrima = (n % d++ ≠ 0);
16          } while (apaPrima && d < n);
17
18          if (apaPrima) {
19              System.out.println(n + " adalah prima.");
20          } else {
21              System.out.println(n + " bukan prima.");
22          }
23      }
24  }
```

```
x= 0.7751447
77 bukan prima.
```

Soal 13

```java
1   import java.util.Random;
2
3   public class soal13_DoWhileBabylonian {
4
        Run | Debug | Run main | Debug main
5       public static void main(String[] args) {
6           final double TOL = 0.5E-15;
7
8           Random acak = new Random();
9           double x = acak.nextDouble();
10          System.out.println("\tx= " + x);
11
12          do {
13              x = (x + 2.0 / x) / 2;
14              System.out.println("\tx = " + x);
15          } while (Math.abs(x * x - 2.0) > TOL * 2 * x);
16
17          System.out.println("sqrt(2.0) = " + Math.sqrt(a:2.0));
18      }
19  }
```

```
x= 0.43308894848891477
x = 2.5255389740789314
x = 1.658724572375142
x = 1.4322351299702438
x = 1.414326943511381
x = 1.4142135669177596
x = 1.414213562373095
sqrt(2.0) = 1.4142135623730951
```

Soal 14

```java
1  public class soal14_DemoFor {
2
       Run | Debug | Run main | Debug main
3      public static void main(String args[]) {
4          int n;
5
6          for (n = 10; n > 0; n--) {
7              System.out.println("tik " + n);
8          }
9      }
10 }
```

```
tik 10
tik 9
tik 8
tik 7
tik 6
tik 5
tik 4
tik 3
tik 2
tik 1
```

Soal 15

```java
1  public class soal15_ForPrima {
2
       Run | Debug | Run main | Debug main
3      public static void main(String args[]) {
4          int angka;
5          boolean apaPrima = true;
6          angka = 14;
7
8          for (int i = 2; i ≤ angka / i; i++) {
9              if ((angka % i) == 0) {
10                 apaPrima = false;
11                 break;
12             }
13         }
14
15         if (apaPrima) {
16             System.out.println(x:"Prima");
17         } else {
18             System.out.println(x:"Bukan Prima");
19         }
20     }
21 }
```

```
Bukan Prima
```

Soal 16

```java
1  public class soal16_VariasiFor {
2
       Run | Debug | Run main | Debug main
3      public static void main(String args[]) {
4          boolean selesai = false;
5          int i;
6          i = 0;
7
8          for (; !selesai;) {
9              System.out.println("i bernilai " + i);
10             if (i == 10) {
11                 selesai = true;
12             }
13             i++;
14         }
15     }
16 }
```

```
i bernilai 0
i bernilai 1
i bernilai 2
i bernilai 3
i bernilai 4
i bernilai 5
i bernilai 6
i bernilai 7
i bernilai 8
i bernilai 9
i bernilai 10
```

Soal 17

```
1   public class soal17_ForDaftarHuruf {
2
        Run | Debug | Run main | Debug main
3       public static void main(String args[]) {
4           for (char c = 0; c < 128; c++) {
5               if (Character.isLowerCase(c)) {
6                   System.out.println("nilai: " + (int) c + " karakter: " + c);
7               }
8           }
9       }
10  }
```

```
nilai: 97 karakter: a
nilai: 98 karakter: b
nilai: 99 karakter: c
nilai: 100 karakter: d
nilai: 101 karakter: e
nilai: 102 karakter: f
nilai: 103 karakter: g
nilai: 104 karakter: h
nilai: 105 karakter: i
nilai: 106 karakter: j
nilai: 107 karakter: k
nilai: 108 karakter: l
nilai: 109 karakter: m
nilai: 110 karakter: n
nilai: 111 karakter: o
nilai: 112 karakter: p
nilai: 113 karakter: q
nilai: 114 karakter: r
nilai: 115 karakter: s
nilai: 116 karakter: t
nilai: 117 karakter: u
nilai: 118 karakter: v
nilai: 119 karakter: w
nilai: 120 karakter: x
nilai: 121 karakter: y
nilai: 122 karakter: z
```

Soal 18

```
1   import java.util.Random;
2
3   public class soal18_ForAkumulasi {
4
        Run | Debug | Run main | Debug main
5       public static void main(String[] args) {
6           Random acak = new Random();
7
8           float jum = 0;
9
10          for (int i = 0; i < 5; i++) {
11              float x = acak.nextFloat();
12              jum += x;
13              System.out.println("\tx= " + x + "\t\tjum= " + jum);
14          }
15      }
16  }
```

```
PROBLEMS 4    OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

PS C:\Users\Sheva Meazza\OneDrive\Documents\Gunadarma\AP2\AP2A\MATKUL\vclass-m9>  & 'C:\Program Files\J
kspaceStorage\de4ae1739d935d47a26e1cc2f326f960\redhat.java\jdt_ws\vclass-m9_9fde7219\bin' 'soal18_ForAk
        x= 0.3768204          jum= 0.3768204
        x= 0.6329303          jum= 1.0097506
        x= 0.037919104        jum= 1.0476696
        x= 0.96394426         jum= 2.0116138
        x= 0.5288749          jum= 2.5404887
PS C:\Users\Sheva Meazza\OneDrive\Documents\Gunadarma\AP2\AP2A\MATKUL\vclass-m9>
```

Soal 19

```java
import java.util.Random;

public class soal19_ForKeprimaan {

    public static void main(String[] args) {
        Random random = new Random();

        float x = random.nextFloat();
        System.out.println("x = " + x);
        int n = (int) Math.floor(99 * x + 2);

        for (int d = 2; d < n; d++) {
            if (n % d == 0) {
                System.out.println(n + " bukan prima.");
                return;
            }
        }

        System.out.println(n + " prima.");
    }
}
```

```
x = 0.6793913
69 bukan prima.
```

Soal 20

```java
import java.util.Random;

public class soal20_FordanBreak {

    public static void main(String[] args) {
        Random acak = new Random();

        float x = acak.nextFloat();
        System.out.println("x = " + x);
        int n = (int) Math.floor(101 * x);
        boolean apaTidakPrima = (n < 2);

        for (int d = 2; d < n; d++) {
            apaTidakPrima = (n % d == 0);
            if (apaTidakPrima) {
                break;
            }
        }

        if (apaTidakPrima) {
            System.out.println(n + " bukan prima.");
        } else {
            System.out.println(n + " prima.");
        }
    }
}
```

```
x = 0.5072332
51 bukan prima.
```

Soal 21

```java
public class soal21_DemoForEach {

    Run | Debug | Run main | Debug main
    public static void main(String args[]) {
        int angka[] = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};
        int jum = 0;

        for (int x : angka) {
            System.out.println("Nilai adalah: " + x);
            jum += x;
        }

        System.out.println("Penjumlahan akumulasi: " + jum);
    }
}
```

```
Nilai adalah: 1
Nilai adalah: 2
Nilai adalah: 3
Nilai adalah: 4
Nilai adalah: 5
Nilai adalah: 6
Nilai adalah: 7
Nilai adalah: 8
Nilai adalah: 9
Nilai adalah: 10
Penjumlahan akumulasi: 55
```

Soal 22

```java
import java.util.*;
public class soal22_ForEachFloat {
    Run | Debug | Run main | Debug main
    public static void main(String[] args) {
        Random acak = new Random(seed:47);
        float f[] = new float[10];
        for (int i = 0; i < 10; i++) {
            f[i] = acak.nextFloat();
        }
        for (float x : f) {
            System.out.println(x);
        }
    }
}
```

```
0.72711575
0.39982635
0.5309454
0.0534122
0.16020656
0.57799757
0.18847865
0.4170137
0.51660204
0.73734957
```

Soal 23

```
1   public class soal23_ForEachBreak {
        Run | Debug | Run main | Debug main
2       public static void main(String args[]) {
3           int jum = 0;
4           int angka[] = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};
5           for (int x : angka) {
6               System.out.println("Nilai adalah: " + x);
7               jum += x;
8               if (x == 5) {
9                   break;
10              }
11          }
12          System.out.println("Penjumlahan atas 5 elemen pertama: " + jum);
13      }
14  }
```

```
Nilai adalah: 1
Nilai adalah: 2
Nilai adalah: 3
Nilai adalah: 4
Nilai adalah: 5
Penjumlahan atas 5 elemen pertama: 15
```

Soal 24

```
1   public class soal24_ForEachTidakBisaModifikasi {
        Run | Debug | Run main | Debug main
2       public static void main(String args[]) {
3           int angka[] = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};
4
5           for (int x : angka) {
6               System.out.print(x + " ");
7               x = x * 10;
8           }
9           System.out.println();
10          for (int x : angka) {
11              System.out.print(x + " ");
12              System.out.println();
13          }
14      }
15  }
```

```
1 2 3 4 5 6 7 8 9 10
1
2
3
4
5
6
7
8
9
10
```

Soal 25

```
1  public class soal25_ForEachDuaDimensi {
        Run | Debug | Run main | Debug main
2      public static void main(String args[]) {
3          int jum = 0;
4          int angka[][] = new int[3][5];
5          for (int i = 0; i < 3; i++) {
6              for (int j = 0; j < 5; j++) {
7                  angka[i][j] = (i + 1) * (j + 1);
8              }
9          }
10         for (int x[] : angka) {
11             for (int y : x) {
12                 System.out.println("Nilai adalah: " + y);
13                 jum += y;
14             }
15         }
16         System.out.println("Penjumlahan akumulasi: " + jum);
17     }
18 }
```

```
Nilai adalah: 1
Nilai adalah: 2
Nilai adalah: 3
Nilai adalah: 4
Nilai adalah: 5
Nilai adalah: 2
Nilai adalah: 4
Nilai adalah: 6
Nilai adalah: 8
Nilai adalah: 10
Nilai adalah: 3
Nilai adalah: 6
Nilai adalah: 9
Nilai adalah: 12
Nilai adalah: 15
Penjumlahan akumulasi: 90
```

Soal 26

```
1  public class soal26_DemoContinue {
2
        Run | Debug | Run main | Debug main
3      public static void main(String args[]) {
4          for (int i = 0; i < 10; i++) {
5              System.out.print(i + " ");
6              if (i % 2 == 0) {
7                  continue;                          0 1
8              }
                                                      2 3
9              System.out.println(x:"");
10         }                                          4 5
11     }
                                                      6 7
12 }
                                                      8 9
```

Soal 27

```
1   public class soal27_DemoContinue2 {
2
    Run | Debug | Run main | Debug main
3       public static void main(String args[]) {
4           luar:
5           for (int i = 0; i < 10; i++) {
6               for (int j = 0; j < 10; j++) {
7                   if (j > i) {
8                       System.out.println();
9                       continue luar;
10                  }
11
12                  System.out.print(" " + (i * j));
13              }
14          }
15
16          System.out.println();
17      }
18  }
```

```
0
0 1
0 2 4
0 3 6 9
0 4 8 12 16
0 5 10 15 20 25
0 6 12 18 24 30 36
0 7 14 21 28 35 42 49
0 8 16 24 32 40 48 56 64
0 9 18 27 36 45 54 63 72 81
```

Soal 28

```
1   public class soal28_DemoForTabelKebenaran {
2
    Run | Debug | Run main | Debug main
3       public static void main(String[] args) {
4           final int UKURAN = 15;
5
6           for (int x = 1; x ≤ UKURAN; x++) {
7               for (int y = 1; y ≤ UKURAN; y++) {
8                   int z = x * y;
9                   if (z < 10) {
10                      System.out.print(s:"  ");
11                  }
12                  if (z < 100) {
13                      System.out.print(s:" ");
14                  }
15                  System.out.print(" " + z);
16              }
17              System.out.println();
18          }
19      }
20  }
```

```
 1   2   3   4   5   6   7   8   9  10  11  12  13  14  15
 2   4   6   8  10  12  14  16  18  20  22  24  26  28  30
 3   6   9  12  15  18  21  24  27  30  33  36  39  42  45
 4   8  12  16  20  24  28  32  36  40  44  48  52  56  60
 5  10  15  20  25  30  35  40  45  50  55  60  65  70  75
 6  12  18  24  30  36  42  48  54  60  66  72  78  84  90
 7  14  21  28  35  42  49  56  63  70  77  84  91  98 105
 8  16  24  32  40  48  56  64  72  80  88  96 104 112 120
 9  18  27  36  45  54  63  72  81  90  99 108 117 126 135
10  20  30  40  50  60  70  80  90 100 110 120 130 140 150
11  22  33  44  55  66  77  88  99 110 121 132 143 154 165
12  24  36  48  60  72  84  96 108 120 132 144 156 168 180
13  26  39  52  65  78  91 104 117 130 143 156 169 182 195
14  28  42  56  70  84  98 112 126 140 154 168 182 196 210
15  30  45  60  75  90 105 120 135 150 165 180 195 210 225
```

Soal 29

```java
import java.util.Random;
public class soal29_DemoForHitung {
    // Run | Debug | Run main | Debug main
    public static void main(String[] args) {
        Random acak = new Random();
        float x = acak.nextFloat();
        System.out.println("x= " + x);
        int n = (int) Math.floor(99 * x + 2);
        System.out.println("n= " + n);
        int jum = 0;
        for (int i = 1; i <= n; i++) {
            jum += i * i;
        }
        int formula = n * (n + 1) * (2 * n + 1) / 6;
        System.out.println("jum= " + jum);
        System.out.println("n*(n+1)*(2*n+1)/6 = " + formula);
    }
}
```

```
x= 0.15456486
n= 17
jum= 1785
n*(n+1)*(2*n+1)/6 = 1785
```