① - False
- True
- True
- True
- False
- True
- True
- True
- True
- True
- True
- True
- True
- True

② - nilai akhir variabel result adalah 25
- output program adalah Nilai akhir result: 25
- kondisi 1: $x > 5$ benar, selanjutnya cek apakah $y < 10$, dan hasilnya benar. Berarti result $= x + y$

Kondisi 2 : $z > 10$ $\&\&$ $x == 10$ benar, berarti nilai current result ditambah z

Kondisi 3 : $x == 10$ || $y > 10$ ya salah satu benar ($x == 10$) berarti nilai current result ditambah 5

Kondisi 4 : !($x < 15$ $\&\&$ $y < 10$) berarti pertama cek apakah $x < 15$ dan $y < 10$ lalu hasilnya dinegasikan. dampaknya adalah hasilnya menjadi false (in this case) berarti nilai current result dikurangi 10

③ ''' soal3

```java
import java.util.Scanner;

public class soal3 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("masukan tahun: (contoh: 2002)");
        int year = input.nextInt();
        System.out.println("masukan bulan: (tiga huruf, huruf pertama kapital)");
        String month = input.next();
        input.close();
        String[] listMonth = {"Jan", "Feb", "Mar", "Apr", "May", "Jun", "Jul", "Aug", "Sep",
                "Oct", "Nov", "Des"};
        int[] totalDays = {31, 28, 31, 30, 31, 30, 31, 31, 30, 31, 30, 31};
        String result = "\nInvalid month.\nWhere is the valid month :\n" +
                String.join(",", listMonth);

        if (year % 4 == 0) {
            totalDays[1] = 29;
        }
        for (int i = 0; i < totalDays.length; i++) {
            if (month.equals(listMonth[i])) {
                result = month + " " + year + " memiliki " + totalDays[i] + " hari ";
            }
        }
        System.out.println(result);
    }
}
```
'''

④ ``` soal a

```
import java.util.Scanner;

public class soal4 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("masukan true/palsle: ");
        String userInput = input.next();
        input.close();
        String result = "User input is: ";

        switch (userInput) {
            case "true":
                result += true
                break;
            case "false":
                result += false.
                break;
            default:
                result += "Invalid (only true or false with lowercase");
                break.
        }
        System.out.println(result);

    }
}
```
```

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Kode asprak: MNG

| No. | Answer |
| --- | --- |
| 1. | |

| True/False | Condition |
| --- | --- |
| false | intNum >5 |
| true | intNum >= 5 && intOther < 11 |
| true | sngNum != -1 \|\| intOther < 0 |
| true | !(intNum > 3) \|\| intNum <= 5 |
| false | !(intOther >= intNum) |
| true | 0 - sngNum > 0 |
| true | 4/2 == intOther / intNum |
| true | intOther % 2 == 0 |
| true | intOther + 2 * intNum != 30 \|\| !(sngNum > 0) |
| true | intOther > 0 && intNum > 0 \|\| sngNum > 0 |
| true | sngNum > 0 \|\| (intNum >= 0 && -1 * intOther == -10) |
| true | intNum == 5 |
| true | intNum > 0 \|\| (sngnum <= 0 && intOther == 13) |
| true | !(!(!(!(intNum > 0 )))) |

| | |
| --- | --- |
| 2. | • Nilai akhir variable result adalah 25<br>• Output program adalah: Nilai akhir result: 25<br>• Kondisi 1: x > 5 benar, selanjutnya cek apakah y < 10, dan hasilnya benar. Berarti result = x + y<br>Kondisi 2: z > 10 && x == 10 benar, berarti nilai result ditambah z<br>Kondisi 3: x == 10 \|\| y > 10 ya salah satu benar (x == 10) berarti nilai result ditambah 5<br>Kondisi 4: !(x < 15 && y < 10) berarti pertama cek apakah x kurang dari 15 dan y kurang dari 10 lalu hasilnya di negasikan dampaknya adalah hasilnya jadi false berarti nilai result dikurang 10 |

**3.**

```java
! 21 import java.util.Scanner;      ■ soal3.java is a non-project file, only syntax errors are repo
  20
  19 public class soal3 {
  18 |  public static void main(String[] args) {
  17 | | Scanner input = new Scanner(System.in);
  16 | |
  15 | | System.out.println("masukan tahun: (contoh: 2002)");
  14 | | int year = input.nextInt();
  13 | |
  12 | | System.out.println("masukan bulan: (tiga huruf, huruf pertama kapial)");
  11 | | String month = input.next();
  10 | |
   9 | | input.close();
   8 | |
   7 | | String[] listMonth = { "Jan", "Feb", "Mar", "Apr", "May", "Jun", "Jul", "Aug", "Sep",
  "Oct", "Nov", "Des" };
   6 | | int[] totalDays = { 31, 28, 31, 30, 31, 30, 31, 31, 30, 31, 30, 31 };
   5 | | String result = "\nInvalid Month. \n\nhere is the list of valid month:\n" + String.
  join(", ", listMonth);
   4 | |
   3 | | if (year % 4 == 0) {
   2 | |   totalDays[1] = 29;
   1 | | }
  22 | |
   1 | | for (int i = 0; i < totalDays.length; i++) {
   2 | |   if (month.equals(listMonth[i])) {
   3 | | |   result = month + " " + year + " memiliki " + totalDays[i] + " hari";
   4 | | | }
   5 | | }
   6 | |
   7 | | System.out.println(result);
   8 | |
   9 | }
  10 }
```

```
zvasoup@nixos:~/D/o/u/f/A/Pekan-4
$ javac soal3.java

zvasoup@nixos:~/D/o/u/f/A/Pekan-4
$ java soal3
masukan tahun: (contoh: 2002)
2001
masukan bulan: (tiga huruf, huruf pertama kapial)
Jan
Jan 2001 memiliki 31 hari

zvasoup@nixos:~/D/o/u/f/A/Pekan-4
$ java soal3
masukan tahun: (contoh: 2002)
2004
masukan bulan: (tiga huruf, huruf pertama kapial)
Feb
Feb 2004 memiliki 29 hari

zvasoup@nixos:~/D/o/u/f/A/Pekan-4
$ java soal3
masukan tahun: (contoh: 2002)
2004
masukan bulan: (tiga huruf, huruf pertama kapial)
feb

Invalid Month.

here is the list of valid month:
Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Des

zvasoup@nixos:~/D/o/u/f/A/Pekan-4
$
```

```
<] ~/Documents/orgmode/uni/first-semester/ALPRO-CCK1DAB4-SE-48-03/Pekan-4/soal3.java[java][22 :0 ]
10 lines yanked
[Session: 1-0]                                                  1:fish*                    [top:right]
```

4.


```java
import java.util.Scanner;

public class soal4 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        System.out.println("masukan true/false: ");
        String userInput = input.next();
        input.close();
        String result = "User input is: ";

        switch (userInput) {
            case "true":
                result += true;
                break;

            case "false":
                result += false;
                break;

            default:
                result += "Invalid (only true or false with lowercase)";
                break;
        }

        System.out.println(result);
    }
}
```

```
zvasoup@nixos:~/D/o/u/f/A/Pekan-4
$ javac soal4.java

zvasoup@nixos:~/D/o/u/f/A/Pekan-4
$ java soal4
masukan true/false:
true
User input is: true

zvasoup@nixos:~/D/o/u/f/A/Pekan-4
$ java soal4
masukan true/false:
false
User input is: false

zvasoup@nixos:~/D/o/u/f/A/Pekan-4
$ java soal4
masukan true/false:
True
User input is: Invalid (only true or false with lowercase)

zvasoup@nixos:~/D/o/u/f/A/Pekan-4
$ java soal4
masukan true/false:
@
User input is: Invalid (only true or false with lowercase)

zvasoup@nixos:~/D/o/u/f/A/Pekan-4
$
```