CIS1068, Program Design and Abstraction

(a) (b) (c) (d) (e) (f)
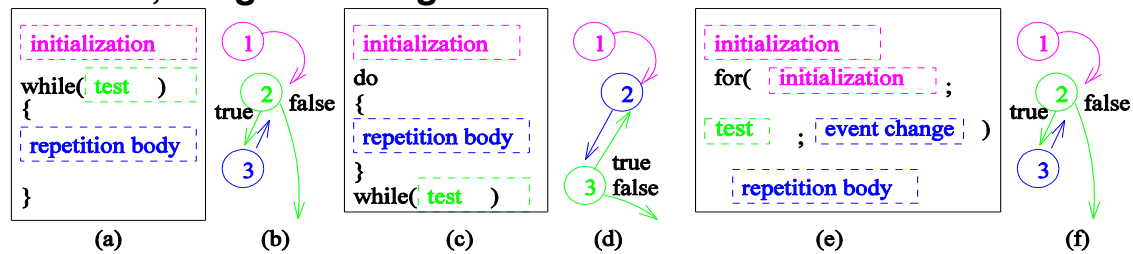
Rewrite the following counter-control program to do while loop and for loop, in order to print out the biggest number inputted via keyboard.

```java
Scanner keyboard = new Scanner(System.in);
int max = -1;
int n;
int c = 0;
while (c<10)
{
    n = keyboard.nextInt();
    if (n > max)
    {
        max = n;
    }
    c++;
}
System.out.print(max);
```

Do while loop:
```java
Scanner keyboard = new Scanner(System.in);
int max, n, c;
?
do
{
?
} ?    (  ?                );
System.out.print(max);
```

For loop:
```java
Scanner keyboard = new Scanner(System.in);
int max, n, c;
?
for (? )
{
?
};
System.out.print(max);
```

Rewrite the following event control program to while loop and for loop.

```java
Scanner keyboard = new Scanner(System.in);
int total = 0;
int c = 1;
int n = keyboard.nextInt();
while(c<2*n)
{
c = c* 2;
total = total + c;
System.out.print(" "+c);
}
System.out.println(total);
```

While loop:

```java
Scanner keyboard = new Scanner(System.in);
int total, c, n;
?
do
{
?
} while(?);
System.out.print(total);
```

For loop:

```java
Scanner keyboard = new Scanner(System.in);
int total, c, n;
?
for (? )
{
?
};
System.out.print(total);
```

Provide the value printed on the screenshot:

```
public class For1 {
  public static void main(String [] args) {
    for(int i = 1; i < 10; i*=i) {
      System.out.println("i = " + i);
    }
  }
}


public class For2 {
  public static void main(String [] args) {
    int i;
    for(i = 1; i < 5; i++)
      System.out.println("i = " + i);
  }
}


public class For3 {
  public static void main(String [] args) {
    int i;
    for(i = 1; i < 5; i++);
      System.out.println("i = " + i);
  }
}

public class For4 {
  public static void main(String [] args) {
    for(int i = 1; i < 5; i++);
      System.out.println("i = " + i);
  }
}


public class For5 {
  public static void main(String [] args) {
    for(int i = 1; i < 0; i++) {
      System.out.println("i = " + i);
    }
  }
}


public class Do_while1 {
  public static void main(String [] args) {
    int i = 1;
    do{
      System.out.println("i = " + i);
      i++;
    }while (i < 0);
  }
}
```