

1. Value of n? _____

```
n = 0;
i = 1;
while (i < 4) {
    n++;
    i++;
}
```

2. Value of n? _____

```
n = 0;
i = 1;
do {
    n++;
    i++;
} while (i <= 5);
```

3. Value of n? _____

```
n = 0;
i = 1;
while (!(i > 4)) {
    n = n + 1;
}
```

4. Value of n? _____

```
n = 0;
i = 1;
while (i < 4) {
    for (j=1; j<=i; j++) {
        n += 1;
    }
    i = i + 1;
}
```

5. Value of n? _____

```
n = 0;
i = 3;
while (i < 4) {
    n++;
    i--;
}
```

6. Convert for loop to a while loop

```
for(int i=0 ; i<10; i=i+3){  
    System.out.print(i);  
    System.out.print(" ");  
}
```

7. Convert do-while loop to a while loop

```
int i=0;  
do{  
    System.out.print(i);  
    System.out.print(" ");  
}while(i<3);
```

8. Convert the for loop from (6.) to a do-while loop

9. Write an algorithm to compute Ulam sequence (e.g. 3,10,5,16,8,4,2,1).

10. Write an algorithm to compute through the Gregory series ($\frac{4}{1} - \frac{4}{3} + \frac{4}{5} - \frac{4}{7} + \frac{4}{9} - \frac{4}{11} + \frac{4}{13} \dots$). Stop condition: when terms become less than 0.000001