

Lab Exercise 03

1. Write a program that given r, a and n, displays the first n terms of the corresponding geometric progression.
2. Print the sum of the reciprocals of the first 100 natural number.
3. Write a Java program by using three for loops to print the following pattern:

1*****

12*****

123*****

1234****

12345***

123456*

1234567

4. Write Java program to prompt the user to choose the correct answer from a list of answer choices of a question. The user can choose to continue answering the question or stop answering it.

See the example below: What is the command keyword to exit a loop in Java?

- a. Int
- b. Continue
- c. break
- d. Exit

Enter your choice: b

Incorrect!

Again? press y to continue:

Enter your choice: c

Congratulations!

5. Write Java program to print the table of characters that are equivalent to the Ascii codes from 1 to 122. The program will print the 10 characters per line.

6. Write a program to print the following patterns

```
1
12
123
1234
12345
```

7. Write a program to print the following patterns

```
1
12
123
1234
12345
1234
123
12
1
```

8. Write a program to print the following patterns

```
12345
1234
123
12
1
12
123
1234
12345
```

9. Write a program to print the following patterns

```
*
**
***
****
*****
```

10. Write a program to print the following patterns

```
*****
****
***
**
*
```

11. Write a program to print the following output

```
A B C D E F G F E D C B A
```

```

A B C D E F   F E D C B A
A B C D E     E D C B A
A B C D       D C B A
A B C         C B A
A B           B A
A             A

```

12. Write a program to print the following patterns

```

*****

```

```

*****

```

```

***

```

```

**

```

```

*

```

13. Write a program to print the following patterns

```

*

```

```

***

```

```

*****

```

```

*****

```

```

*****

```

14. Write a program to print the following patterns

```

*****

```

```

*****

```

```

*****

```

```

***

```

```

*

```

15. Write a program to print the following patterns*

```

***

```

```

*****

```

```

*****

```

```

*****

```

```

*****

```

```

*****

```

```

***

```

```

*

```

16. Write a program to print the following patterns

```

$ * * * $

```

```

* $ $ *

```

```

* $ *

```

```

* $ $ *

```

\$ * * * \$

16.Matrix Multiplication

Input: Two matrices A and B.

Output: $A * B$