Practical No. 5

Aim: Write a shell script using expr to perform arithmetic operations.

Course Outcome: Develop shell program for solving different problems.

Resource requirement: Laptop or Computer (with Linux terminal), basic knowledge of conditionalstatements in Linux.

Theory:

Arithmetic Operators:

The arithmetic operators are used to perform mathematical operations

The following arithmetic operators are supported by Bourne Shell.

Assume variable **a** holds 10 and variable **b** holds 20 then −

Operator	Description	Example
+ (Addition)	Adds values on either side of the operator	`expr $a + $b` will give 30
- (Subtraction)	Subtracts right hand operand from left hand operand	`expr $a - $b` will give -10
* (Multiplication)	Multiplies values on either side of the operator	`expr $a \* $b` will give 200
/ (Division)	Divides left hand operand by right hand operand	`expr $b / $a` will give 2
% (Modulus)	Divides left hand operand by right hand operand and returns remainder	`expr $b % $a` will give 0

expr Command:

The **expr** command in Unix evaluates a given expression and displays its corresponding output. It is used for:

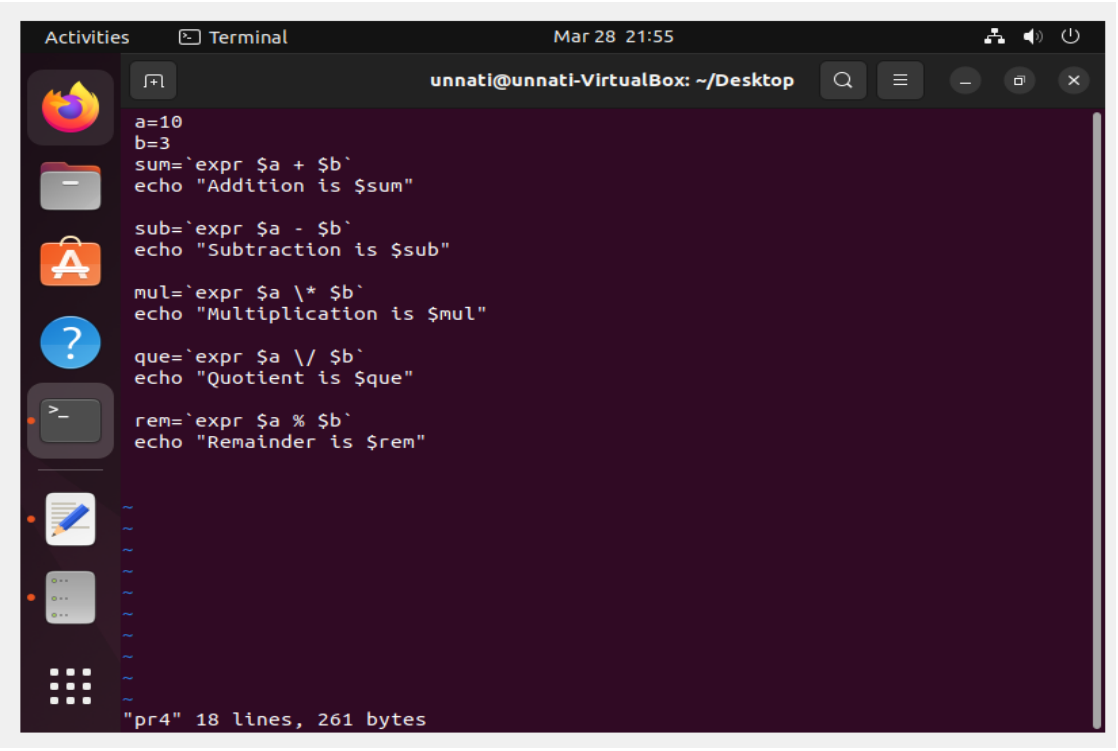
- Basic operations like addition, subtraction, multiplication, division, and modulus on integers.
- Evaluating regular expressions, string operations like substring, length of strings etc.

Syntax:

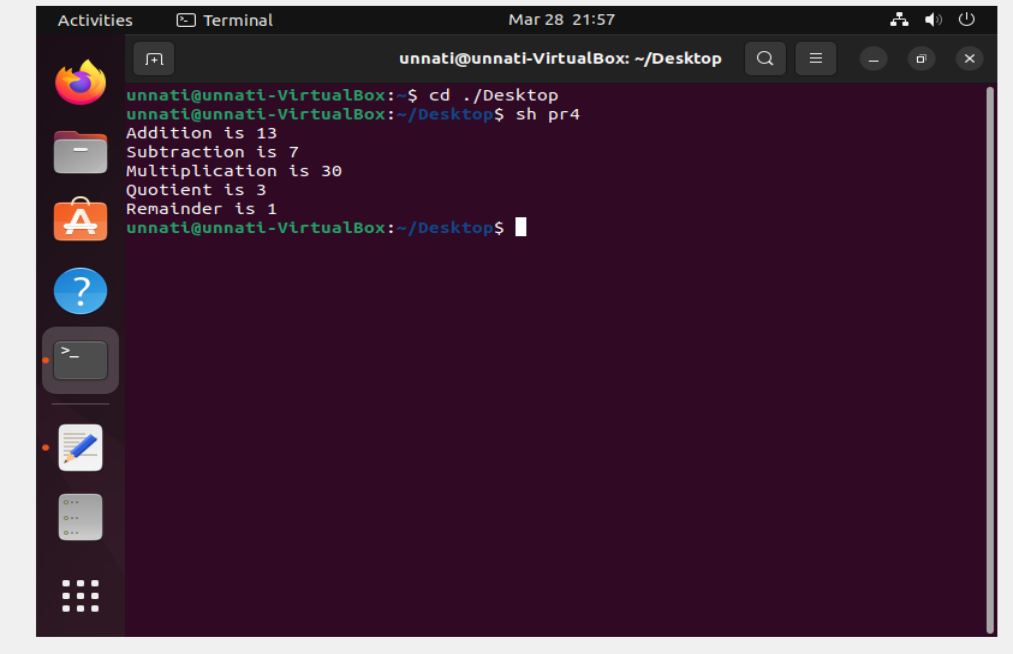
$expr expression

Shell Script:

Program:



Output:



Conclusion:

In this practical, we have successfully developed program to perform mathematical operations using expr command.