In Previous Years Questions

The expr command is a built-in command in Linux that evaluates arithmetic expressions and string comparisons. It is a simple and versatile tool for performing calculations and comparisons on the command line.

Some of the uses of expr command:

- 1. Basic arithmetic operations: Addition, subtraction, multiplication, division, and modulus.
- 2. Comparisons: Equality, inequality, greater than, less than, greater than or equal to, less than or equal to.
- 3. String operations: Length of a string, extracting a substring, comparing strings.
- 4. Combining expressions: Use parentheses to combine multiple expressions.

Example 1: Adding two numbers:

expr 10 + 5

This command will output the sum of 10 and 5, which is 15.

Example 2: Subtracting two numbers:

expr 20 - 7

This command will output the difference of 20 and 7, which is 13.

Example 3: Multiplying two numbers:

expr 3 * 4

This command will output the product of 3 and 4, which is 12.

Example 4: Dividing two numbers:

expr 12 / 3

This command will output the quotient of 12 and 3, which is 4.

Example 5: Finding the length of a string:

```
expr length "Hello World"
```

This command will output the length of the string "Hello World", which is 11.

Example 6: Extracting a substring:

```
expr substr "This is a string" 5 4
```

This command will output the substring starting at the 5th character (index 4) of the string "This is a string", with a length of 4 characters. The output will be "is a".

Example 7: Comparing two strings:

```
expr "apple" == "banana"
```

This command will compare the strings "apple" and "banana". Since they are not equal, the output will be 0.

Example 8: Combining expressions:

```
expr \( 10 + 5\ )\ * 2
```

This command will first evaluate the expression inside the parentheses (10 + 5), then multiply the result by 2. The output will be 30.