

21 Lecture - CS304

Important Subjective

1. **What is the difference between prefix and postfix increment/decrement operators?**

Answer: Prefix increment/decrement operators modify the value of the operand before using it, while postfix increment/decrement operators modify the value of the operand after using it.

What is the behavior of the increment/decrement operators for integer types?

Answer: The increment/decrement operators for integer types increment or decrement the value of the operand by 1.

What is the behavior of the increment/decrement operators for floating-point types?

Answer: The behavior of the increment/decrement operators for floating-point types can lead to rounding errors.

What is the behavior of the increment/decrement operators for pointer types?

Answer: The behavior of the increment/decrement operators for pointer types depends on the underlying architecture, but generally, they move the pointer by the size of the pointed-to type.

What happens when we use the increment/decrement operators on an unsigned integer type and the result would be negative?

Answer: The behavior is undefined, and it's essential to use these operators with care to avoid unintended side effects or undefined behavior.

What is the result of the following code snippet?

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```
int a = 5;
```

```
int b = ++a + a++ + ++a;
```

Answer: The result is undefined because the order of evaluation of the expressions is unspecified.

What is the result of the following code snippet?

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Copy code

```
int a = 5;
```

```
int b = a++ * ++a;
```

Answer: The result is undefined because the order of evaluation of the expressions is unspecified.

What is the result of the following code snippet?

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Copy code

```
int a = 5;
```

```
int b = ++a * a++;
```

Answer: The result is undefined because the order of evaluation of the expressions is unspecified.

What happens when we use the increment/decrement operators on a constant variable?

Answer: It's not allowed to use the increment/decrement operators on a constant variable, and it results in a compilation error.

Can we use the increment/decrement operators on Boolean types?

Answer: No, we cannot use the increment/decrement operators on Boolean types because they are not arithmetic types.