Lecture 3

Answers

1. Operator ++ has more preference than \*, thus g becomes 4 and when multiplied by 8 gives **32.**
2. **66** ASCII value of ‘A’ is 65, on using ++ operator character value increments by one.
3. **False**  boolean ‘&’ operator always returns true or false. var1 is defined true and var2 is defined false hence their ‘&’ operator result is false.
4. Result = 626.7784146484375

**Operators**

**Example 1**

**int** a=10;

**int** b=10;

System.out.println(a++ + ++a);//10+12=22

System.out.println(b++ + b++);//10+11=21

**Example 2**

**boolean** c=**true**;

System.out.println(!c);//false (opposite of boolean value)

**Example 3**

1. System.out.println(10<<2);//10\*2^2=10\*4=40
2. System.out.println(10<<3);//10\*2^3=10\*8=80
3. System.out.println(20<<2);//20\*2^2=20\*4=80
4. System.out.println(15<<4);//15\*2^4=15\*16=240

**Example 4**

1. System.out.println(10>>2);//10/2^2=10/4=2
2. System.out.println(20>>2);//20/2^2=20/4=5
3. System.out.println(20>>3);//20/2^3=20/8=2

**Example 5**

5

5

-5

1073741819

**Example 6**

1. **int** a=10;
2. **int** b=5;
3. **int** c=20;
4. System.out.println(a<b&&a<c);//false && true = false
5. System.out.println(a<b&a<c);//false & true = false

**Example 7**

1. **public** **static** **void** main(String[] args){
2. **int** a=10;
3. a+=3;//10+3
4. System.out.println(a);
5. a-=4;//13-4
6. System.out.println(a);
7. a\*=2;//9\*2
8. System.out.println(a);
9. a/=2;//18/2
10. System.out.println(a);
11. }}

**Example 8**

1. **class** OperatorExample{
2. **public** **static** **void** main(String args[]){
3. **short** a=10;
4. **short** b=10;
5. //a+=b;//a=a+b internally so fine
6. a=a+b;//Compile time error because 10+10=20 now int
7. System.out.println(a);
8. }}

Output:

Compile time error

After type cast:

1. **class** OperatorExample{
2. **public** **static** **void** main(String args[]){
3. **short** a=10;
4. **short** b=10;
5. a=(**short**)(a+b);//20 which is int now converted to short
6. System.out.println(a);
7. }}

Output:

20