**Example 1: Arithmetic Operators**

1. // Working of arithmetic operators
2. #include <stdio.h>
3. int main()
4. {
5. int a = 9,b = 4, c;
7. c = a+b;
8. printf("a+b = %d \n",c);
9. c = a-b;
10. printf("a-b = %d \n",c);
11. c = a\*b;
12. printf("a\*b = %d \n",c);
13. c = a/b;
14. printf("a/b = %d \n",c);
15. c = a%b;
16. printf("Remainder when a divided by b = %d \n",c);
18. return 0;
19. }

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### Example 2: Increment and Decrement Operators

1. // Working of increment and decrement operators
2. #include <stdio.h>
3. int main()
4. {
5. int a = 10, b = 100;
6. float c = 10.5, d = 100.5;
7. printf("++a = %d \n", ++a);
8. printf("--b = %d \n", --b);
9. printf("++c = %f \n", ++c);
10. printf("--d = %f \n", --d);
11. return 0;
12. }

### Example 3: Assignment Operators

1. // Working of assignment operators
2. #include <stdio.h>
3. int main()
4. {
5. int a = 5, c;
6. c = a; // c is 5
7. printf("c = %d\n", c);
8. c += a; // c is 10
9. printf("c = %d\n", c);
10. c -= a; // c is 5
11. printf("c = %d\n", c);
12. c \*= a; // c is 25
13. printf("c = %d\n", c);
14. c /= a; // c is 5
15. printf("c = %d\n", c);
16. c %= a; // c = 0
17. printf("c = %d\n", c);
18. return 0;
19. }

### Example 4: Relational Operators

1. // Working of relational operators
2. #include <stdio.h>
3. int main()
4. {
5. int a = 5, b = 5, c = 10;
6. printf("%d == %d is %d \n", a, b, a == b);
7. printf("%d == %d is %d \n", a, c, a == c);
8. printf("%d > %d is %d \n", a, b, a > b);
9. printf("%d > %d is %d \n", a, c, a > c);
10. printf("%d < %d is %d \n", a, b, a < b);
11. printf("%d < %d is %d \n", a, c, a < c);
12. printf("%d != %d is %d \n", a, b, a != b);
13. printf("%d != %d is %d \n", a, c, a != c);
14. printf("%d >= %d is %d \n", a, b, a >= b);
15. printf("%d >= %d is %d \n", a, c, a >= c);
16. printf("%d <= %d is %d \n", a, b, a <= b);
17. printf("%d <= %d is %d \n", a, c, a <= c);
18. return 0;
19. }

### Example 5: Logical Operators

1. // Working of logical operators
2. #include <stdio.h>
3. int main()
4. {
5. int a = 5, b = 5, c = 10, result;
6. result = (a == b) && (c > b);
7. printf("(a == b) && (c > b) is %d \n", result);
8. result = (a == b) && (c < b);
9. printf("(a == b) && (c < b) is %d \n", result);
10. result = (a == b) || (c < b);
11. printf("(a == b) || (c < b) is %d \n", result);
12. result = (a != b) || (c < b);
13. printf("(a != b) || (c < b) is %d \n", result);
14. result = !(a != b);
15. printf("!(a == b) is %d \n", result);
16. result = !(a == b);
17. printf("!(a == b) is %d \n", result);
18. return 0;
19. }

### Example 6: Bitwise AND

1. #include <stdio.h>
2. int main()
3. {
4. int a = 12, b = 25;
5. printf("Output = %d", a&b);
6. return 0;
7. }

### Example 7: Bitwise OR

1. #include <stdio.h>
2. int main()
3. {
4. int a = 12, b = 25;
5. printf("Output = %d", a|b);
6. return 0;
7. }

### Example 8: Bitwise XOR

1. #include <stdio.h>
2. int main()
3. {
4. int a = 12, b = 25;
5. printf("Output = %d", a^b);
6. return 0;
7. }

### Example 9: Bitwise complement

1. #include <stdio.h>
2. int main()
3. {
4. printf("Output = %d\n",~35);
5. printf("Output = %d\n",~-12);
6. return 0;
7. }

### Example 10: Shift Operators

1. #include <stdio.h>
2. int main()
3. {
4. int num=212, i;
5. for (i=0; i<=2; ++i)
6. printf("Right shift by %d: %d\n", i, num>>i);
7. printf("\n");
8. for (i=0; i<=2; ++i)
9. printf("Left shift by %d: %d\n", i, num<<i);
11. return 0;
12. }

### Example 11: Shift Operators

/\* C++ Program to demonstrate use of left shift

operator \*/

#include<stdio.h>

int main()

{

// a = 5(00000101), b = 9(00001001)

unsigned char a = 5, b = 9;

// The result is 00001010

printf("a<<1 = %d\n", a<<1);

// The result is 00010010

printf("b<<1 = %d\n", b<<1);

return 0;

}

### Example 12: Shift Operators

/\* C++ Program to demonstrate use of right

shift operator \*/

#include<stdio.h>

int main()

{

// a = 5(00000101), b = 9(00001001)

unsigned char a = 5, b = 9;

// The result is 00000010

printf("a>>1 = %d\n", a>>1);

// The result is 00000100

printf("b>>1 = %d\n", b>>1);

return 0;

}

### Example 12: sizeof Operators

#include<stdio.h>

int main()

{

printf("%d\n",sizeof(char));

printf("%d\n",sizeof(int));

printf("%d\n",sizeof(float));

printf("%d", sizeof(double));

return 0;

}