Lab # 05 Tasks

Task 1: Operator Precedence in Expressions
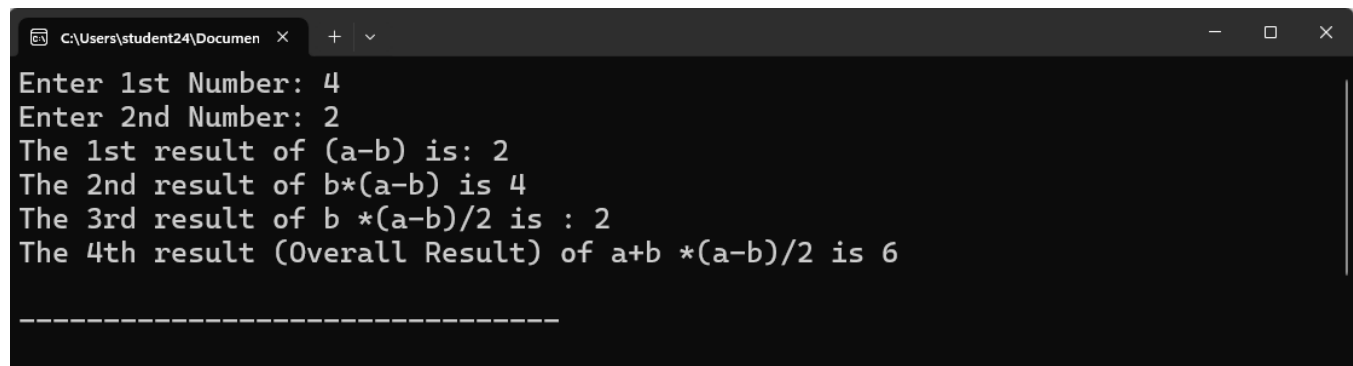
Program:

```c
#include <stdio.h>

int main(void){
    int a,b, exp;
    printf("Enter 1st Number: ");
    scanf("%d",&a);
    printf("Enter 2nd Number: ");
    scanf("%d",&b);

    exp = a+b * (a-b)/2;
    printf("The 1st result of (a-b) is: %d \n", a-b);
    printf("The 2nd result of b*(a-b) is %d \n", b*(a-b));
    printf("The 3rd result of b *(a-b)/2 is : %d \n", b*(a-b)/2);
    printf("The 4th result (Overall Result) of a+b *(a-b)/2 is %d \n", exp);
    return 0;
}
```

Output:

```
C:\Users\student24\Documen    X    +    ∨                                          —   □   ✕
Enter 1st Number: 4
Enter 2nd Number: 2
The 1st result of (a-b) is: 2
The 2nd result of b*(a-b) is 4
The 3rd result of b *(a-b)/2 is : 2
The 4th result (Overall Result) of a+b *(a-b)/2 is 6


--------------------------------
```

Task 2: Logical Operators

Program:

```c
#include <stdio.h>

int main(void){
    int x,y;
    printf("Enter 1st Number: ");
    scanf("%d",&x);

    printf("Enter 2nd Number: ");
    scanf("%d",&y);

    printf("%d \n", x>5 && y<10);
    printf("%d \n", x==10 || y==5);
    printf("%d \n", !(x==y));

    return 0;
}
```

Output:

```
C:\Users\student24\Documen  X    +  ⌄
Enter 1st Number: 6
Enter 2nd Number: 7
1
0
1
```

Task 3: Math Library Functions (Square Root)
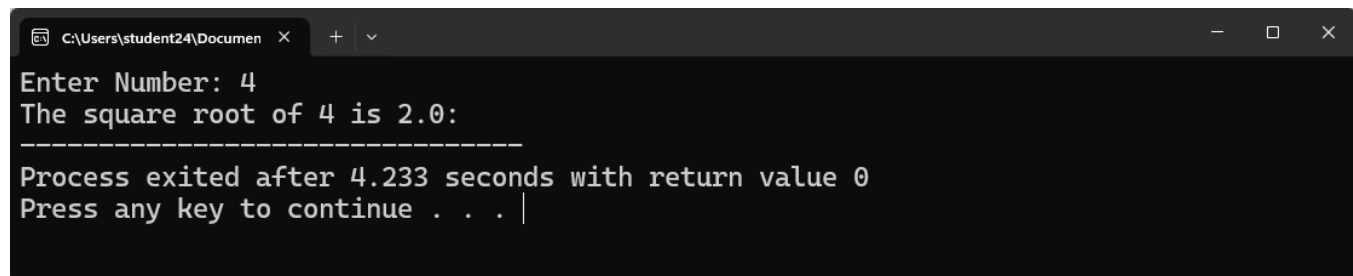
Program:

```c
#include <stdio.h>
#include <math.h>

int main(void){
    int num;
    printf("Enter Number: ");
    scanf("%d",&num);

    printf("The square root of %d is %.1f: ", num,sqrt(num));
    return 0;
}
```

Output:

```
C:\Users\student24\Documen  ×   +  ∨

Enter Number: 4
The square root of 4 is 2.0:
--------------------------------
Process exited after 4.233 seconds with return value 0
Press any key to continue . . .
```

Task 4: Ternary Operator for Largest of Two Numbers
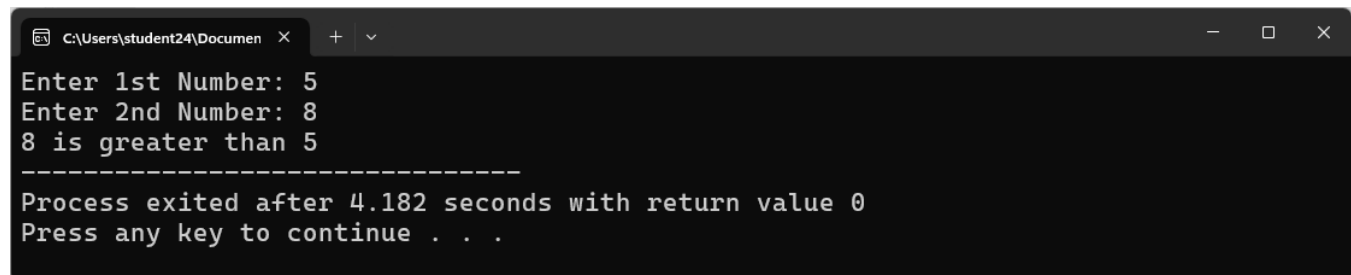
Program:

```c
#include <stdio.h>

int main(void){
    int a,b;
    printf("Enter 1st Number: ");
    scanf("%d",&a);
    printf("Enter 2nd Number: ");
    scanf("%d",&b);

    (a>b)?printf("%d is greater than %d", a, b):printf("%d is greater than %d", b, a);
    return 0;
}
```

Output:

```
C:\Users\student24\Documen  +  v

Enter 1st Number: 5
Enter 2nd Number: 8
8 is greater than 5
--------------------------------
Process exited after 4.182 seconds with return value 0
Press any key to continue . . .
```