



```
1 // Program to check whether entered number is negative.
2 #include <stdio.h>
3 int main()
4 {
5     int num;
6     printf("Enter a number: ");
7     scanf("%d", &num);
8     if (num < 0)
9     {
10         printf("The number %d is negative", num);
11     }
12     return 0;
13 }
```

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```
> ./question1
Enter a number: -34
The number -34 is negative%
```

```
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```



```
1 // Program to determine whether the entered number is even or odd.
2 #include <stdio.h>
3 int main()
4 {
5     int num;
6     printf("Enter a number: ");
7     scanf("%d", &num);
8     if (num % 2 == 0)
9     {
10         printf("The number %d is even", num);
11     }
12     else
13     {
14         printf("The number %d is odd", num);
15     }
16     return 0;
17 }
```

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```
> ./question2
Enter a number: 23
The number 23 is odd%
> ./question2
Enter a number: 10
The number 10 is even%
```

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```

1  /*C program that input Cost Price(CP) and Selling Price(SP) of a product
2  and calculate profit or loss.*/
3  #include <stdio.h>
4  int main()
5  {
6      float CP, SP, profit, loss;
7      printf("Enter Cost Price: ");
8      scanf("%f", &CP);
9      printf("Enter Selling Price: ");
10     scanf("%f", &SP);
11     if (SP > CP)
12     {
13         profit = SP - CP;
14         printf("Profit = %.2f", profit);
15     }
16     else
17     {
18         loss = CP - SP;
19         printf("Loss = %.2f", loss);
20     }
21     return 0;
22 }
23

```

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```

> ./question3
Enter Cost Price: 32
Enter Selling Price: 24
Loss = 8.00%
> ./question3
Enter Cost Price: 355
Enter Selling Price: 554
Profit = 199.00%

```

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```

1 // Program to determine the roots of quadratic equation  $ax^2 + bx + c = 0$ 
2 #include <math.h>
3 #include <stdio.h>
4 int main()
5 {
6     float a, b, c, d, root1, root2, real, img;
7     printf("Enter the coefficients a, b and c: ");
8     scanf("%f%f%f", &a, &b, &c);
9     d = b * b - 4 * a * c;
10    if (d < 0)
11    {
12        printf("Imaginary Roots.");
13        d = sqrt(fabs(d));
14        real = -b / (2 * a);
15        img = d / (2 * a);
16        printf("\nRoot1 = %.2f +i %.2f", real, img);
17        printf("\nRoot2 = %.2f -i %.2f", real, img);
18    }
19    else
20    {
21        printf("Real Roots.");
22        d = sqrt(d);
23        root1 = (-b + d) / (2 * a);
24        root2 = (-b - d) / (2 * a);
25        printf("\nRoot1 = %.2f \t Root2 = %.2f", root1, root2);
26    }
27    return 0;
28 }

```

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```

> ./question4
Enter the coefficients a, b and c: 2 8 3
Real Roots.
Root1 = -0.42    Root2 = -3.58

```

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```

1 // Program that find the smallest among three numbers using nested if else statement
2 #include <stdio.h>
3 int main()
4 {
5     int n1, n2, n3;
6     printf("Enter three numbers: ");
7     scanf("%d%d%d", &n1, &n2, &n3);
8     if (n1 < n2)
9     {
10         if (n1 < n3)
11         {
12             printf("%d is the smallest number", n1);
13         }
14         else
15         {
16             printf("%d is the smallest number", n3);
17         }
18     }
19     else
20     {
21         if (n2 < n3)
22         {
23             printf("%d is the smallest number", n2);
24         }
25         else
26         {
27             printf("%d is the smallest number", n3);
28         }
29     }
30 }

```

PROBLEMS OUTPUT TERMINAL CODEWHISPERER REFERENCE LOG COMMENTS DEBUG CONSOLE

```

> ./question5
Enter three numbers: 3 45 7
3 is the smallest number%
> ./question5
Enter three numbers: 23 19 55
19 is the smallest number%
> ./question5
Enter three numbers: 12 44 9
9 is the smallest number%

```

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```

1  /*Program to that reads the marks of four subject of a student from the user and
2  compute percentage and grade of the student using the following conditions:
3  percentage >= 80, grade = A
4  percentage <80 and per>=60, grade = B
5  percentage <60 and per>=50, grade = C
6  percentage <50 and per>=40, grade = D
7  percentage <40, grade = F*/
8
9  #include <stdio.h>
10 int main()
11 {
12     float m1, m2, m3, m4, per;
13     char grade;
14     printf("Enter the marks of four subject: ");
15     scanf("%f%f%f%f", &m1, &m2, &m3, &m4);
16     per = (m1 + m2 + m3 + m4) / 4;
17     if (per >= 80)
18     {
19         grade = 'A';
20     }
21     else if (per < 80 && per >= 60)
22     {
23         grade = 'B';
24     }
25     else if (per < 60 && per >= 50)
26     {
27         grade = 'C';
28     }
29     else if (per < 50 && per >= 40)
30     {
31         grade = 'D';
32     }
33     else
34     {
35         grade = 'F';
36     }
37     printf("Percentage is %f\n Grade is %c", per, grade);
38     return 0;
39 }

```

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```

> ./question6
Enter the marks of four subject: 87 45 89 65
Percentage is 71.500000
Grade is B

```

```
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```

```

1  /*Program that find the largest among three numbers using logical
2  operators and else if statement*/
3  #include <stdio.h>
4  int main()
5  {
6      int n1, n2, n3;
7      printf("Enter three numbers:");
8      scanf("%d%d%d", &n1, &n2, &n3);
9      if (n1 > n2 && n1 > n3)
10     {
11         printf("%d is the largest number", n1);
12     }
13     else if (n2 > n1 && n2 > n3)
14     {
15         printf("%d is the largest number", n2);
16     }
17     else
18     {
19         printf("%d is the largest number", n3);
20     }
21     return 0;
22 }

```

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```

> ./question7
Enter three numbers:23 43 55
55 is the largest number%
> ./question7
Enter three numbers:32 4 20
32 is the largest number%
> ./question7
Enter three numbers:12 33 4
33 is the largest number%

```

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