

SIMATS| Saveetha School of Engineering

ANJANA
19212101

Questions

CEQ42

Write a program to print hollow Rectangle Dollar pattern?

Test Cases

CEQ41

CEQ42

CEP031

CEP034

CEP041

CEP042

CEP043

CEP044

CEP045

CEP046

CEP047

CEP048

CEP049

CEP050

CEP051

CEP052

CEP053

CEP054

CEP055

CEP056

CEP057

CEP058

CEP059

CEP060

CEP061

CEP062

CEP063

CEP064

CEP065

CEP066

C Run Save Logout

```
1. #include<stdio.h>
2. int main(){
3.     int i,j,n;
4.     printf("enter the number of rows:\n");
5.     scanf("%d",&n);
6.     for(i=1;i<=n;i++){
7.         for(j=1;j<=n;j++){
8.             if(i==1 || i==n || j==1 || j==n){
9.                 printf("$");
10.            }
11.            else{
12.                printf(" ");
13.            }
14.            printf(" \n");
15.        }
16.        return 0;
17.    }
18.
19.
20.
21.
22.
23.
24.
25.
```

5

enter the number of rows:

\$\$\$\$\$

\$ \$

\$ \$

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Questions

CE042

Write a program to print hollow rectangle dollar pattern?

Test Cases

CE041

CE042

CE043

CE044

CE045

CE046

CE047

CE048

CE049

CE050

CE051

CE052

CE053

CE054

CE055

CE056

CE057

CE058

CE059

CE060

CE061

CE062

CE063

CE064

CE065

CE066

CE067

CE068

CE069

CE070

CE071

CE072

CE073

CE074

CE075

CE076

CE077

CE078

CE079

CE080

CE081

CE082

CE083

CE084

CE085

CE086

```
1 #include<stdio.h>
2 int main(){
3     int i,j,n;
4     printf("enter the number of rows:\n");
5     scanf("%d", &n);
6     for(i=1;i<=n;i++){
7         for(j=1;j<=n;j++){
8             if(i==1 || i==n || j==1 || j==n){
9                 printf("$");
10            }
11        else{
12            printf(" ");
13        }
14        printf(" \n ");
15    }
16    return 0;
17 }
```

5

enter the number of rows:

\$\$\$\$

\$ \$

\$ \$

\$ \$

\$\$\$\$

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Questions

CEQ45

Write a program to find the sum of digits of N digit number.

Sample Input:

Enter N value : 3

Enter 3 digit number: 143

Sample Output:

Sum of 3 digit number: 8

Test Cases

1. N = 2, 158
2. N = 3, 24
3. N = 4, 0148
4. N = 2, 0094
5. N = 4, 7283

CEQ41

CEQ42

CEQ43

CEQ44

CEQ45

CEQ46

CEQ47

CEQ48

CEQ49

CEQ50

CEQ51

CEQ52

CEQ53

CEQ54

CEQ55

CEQ56

CEQ57

CEQ58

CEQ59

CEQ60

CEQ61

CEQ62

CEQ63

CEQ64

CEQ65

CEQ66

CEQ67

CEQ68

CEQ69

CEQ70

CEQ71

CEQ72

CEQ73

CEQ74

CEQ75

CEQ76

CEQ77

CEQ78

CEQ79

CEQ80

```
C Run Save Logout
1 #include<stdio.h>
2 int main(){
3 int n,sum=0,m;
4 printf("Enter the number: ");
5 scanf("%d",&n);
6 while(n>0){
7 m=n%10;
8 sum=sum+m;
9 n=n/10;
10 }
11 printf("sum is=%d",sum);
12 return 0;
13 }
```

143

enter the number: sum is=8

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Questions
CE044

Write a program to find the square root of a perfect square number(print both the positive and negative square roots)

Sample Input:
Enter the number : 6561

Sample Output:
Square Root: 81, -81

Test Cases
1. 1225
2. 5901
3. 1627
4. -209
5. 8

Run Save Logout

```
1. #include<stdio.h>
2. #include<math.h>
3. int main(){
4.     int num,sqroot;
5.     printf("enter the number:");
6.     scanf("%d",&num);
7.     sqroot=sqrt(num);
8.     printf("\n square root of %d is %d and -%d",num,sqroot,sqroot);
9.     return 0;
10. }
```

6561

enter the number:
square root of 6561 is 81 and -81

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ANNAU.E
190121917Questions
CNO4.

Write a program to print the all odd numbers and number of even numbers in between N and N0

Sample Inputs:

N = 6

N0 = 15

Sample Output:

All Odd Numbers = 7,9,11,13

Test Cases

1. N = 100, N0 = 100
2. N = 200, N0 = 100
3. N = -5, N0 = 6
4. N = 22, N0 = -22
5. N = 0, N0 = 0

CBNO5
CBNO6
CBNO7
CBNO8
CBNO9
CBNO10
CBNO11
CBNO12
CBNO13

```

1. #include<stdio.h>
2. int main()
3. {
4.
5.     int i,m,n;
6.
7.     printf("Enter the start number:");
8.
9.     scanf("%d",&m);
10.    printf("\nEnter the end number: ");
11.    scanf("%d",&n);
12.    printf("\nEven number:");
13.
14.    for(i=m;i<=n;i++)
15.
16.    {
17.
18.        if((i%2)==0)
19.        {
20.            printf("\t%d",i);
21.        }
22.    }
23.
24.    printf("\nodd number:");
25.    for(i=m;i<=n;i++)
26.    {
27.        if((i%2)!=0)
28.        {
29.            printf("\t%d",i);
30.        }
31.
32.    }
33. }
```

8
15

Enter the start number:
 Enter the end number:
 Even number: 6 8 10 12 14
 odd number: 7 9 11 13 15

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Questions

CE044

Write a program to find the square root of a perfect square number(print both the positive and negative)

Sample Inputs:

Enter the number : 6561

Sample Outputs:

Square Root: 81, -81

Test Cases

1. 1225
2. 3581
3. 1527
4. -390
5. 3

CE044



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

Logout

C V Run Save

```
1. #include<stdio.h>
2. #include<math.h>
3. int main(){
4.     int num,sqrroot;
5.     printf("enter the number:");
6.     scanf("%d",&num);
7.     sqrroot=sqrt(num);
8.     printf("\n square root of %d is %d and -%d",num,sqrroot,sqrroot);
9.     return 0;
10. }
```

6561

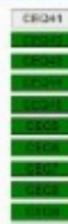
enter the number:
square root of 6561 is 81 and -81

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ANJALI E
190121917Questions
CQ40.

Write a program to print inverted pyramid pattern.

Test Cases



```
1. #include <stdio.h>
2. int main() {
3.     int rows, i, j, space;
4.     printf("Enter the number of rows: \n");
5.     scanf("%d", &rows);
6.     for (i = rows; i >= 1; --i) {
7.         for (space = 0; space < rows - i; ++space)
8.             printf(" ");
9.         for (j = 1; j <= 2 * i - 1; ++j)
10.            printf("*");
11.        for (j = 0; j < 1 - i; ++j)
12.            printf(" ");
13.        printf("\n");
14.    }
15.    return 0;
16. }
```

Run

Save

Logout

8

Enter the number of rows:

```
*****
*****
*****
*****
*****
*****
*****
*****
```

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190121917Questions
C2040.

Write a program to print inverted pyramid pattern.

Test Cases

C2041

C2042

C2043

C2044

C2045

C2046

C2047

C2048

C2049

C2050

C2051

C2052

C2053

C2054

C2055

C2056

C2057

C2058

C2059

C2060

C2061

C2062

C2063

C2064

C2065

C2066

C2067

C2068

C2069

C2070

C2071

C2072

C2073

C2074

C2075

C2076

C2077

C2078

C2079

C2080

C2081

C2082

C2083

```
1. #include <stdio.h>
2. int main() {
3.     int rows, i, j, space;
4.     printf("Enter the number of rows: \n ");
5.     scanf("%d", &rows);
6.     for (i = rows; i >= 1; --i) {
7.         for (space = 0; space < rows - i; ++space)
8.             printf(" ");
9.         for (j = i; j <= 2 * i - 1; ++j)
10.            printf("*");
11.        for (j = 0; j < i - 1; ++j)
12.            printf(" ");
13.        printf("\n");
14.    }
15.    return 0;
16. }
```

8

Enter the number of rows:

**

*

Logout

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1501219317Questions
C045

Write a program to print inverted pyramid pattern.

Test Cases



```
1. #include <stdio.h>
2. int main() {
3.     int rows, i, j, space;
4.     printf("Enter the number of rows: \n ");
5.     scanf("%d", &rows);
6.     for (i = rows; i >= 1; --i) {
7.         for (space = 0; space < rows - i; ++space)
8.             printf(" ");
9.         for (j = i; j <= 2 * i - 1; ++j)
10.             printf("*");
11.         for (j = 0; j < 2 * i - 1; ++j)
12.             printf("*");
13.         printf("\n");
14.     }
15.     return 0;
16. }
```

6

Enter the number of rows:

```
*****
 ****
  ***
   *
  *
  *
```

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1902129317

Questions

CE045

Write a program to print inverted pyramid pattern.

[View Solution](#) [Submit](#) [Edit](#)

Test Cases

Test Case	Output
TC1	*****
TC2	****
TC3	***
TC4	**
TC5	*

```
1. #include <stdio.h>
2. int main() {
3.     int rows, i, j, space;
4.     printf("Enter the number of rows: \n ");
5.     scanf("%d", &rows);
6.     for (i = rows; i >= 1; i--) {
7.         for (space = 0; space < rows - i; space++)
8.             printf(" ");
9.         for (j = 1; j <= 2 * i - 1; j++)
10.             printf("*");
11.         for (j = 0; j < 1 - 3; j++)
12.             printf(" ");
13.         printf("\n");
14.     }
15.     return 0;
16. }
```

[Run](#)[Save](#)[Logout](#)

8

Enter the number of rows:

**
*

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Questions

CE05

Find the LCM and GCD of n numbers.

Sample Inputs:

N value = 2

Number 1 = 15

Number 2 = 20

Sample Outputs:

LCM = 60

GCD = 4

Test Cases

1. N = 3, {12, 25, 30}
2. N = 2, {12, 25, 45}
3. N = 3, {27, 15, 21}
4. N = -1, {55, 60}
5. N = 2, {50, 45}

CPCH1

CPCH2

CPCH3

CPCH4

CPCH5

CPCH6

CPCH7

CPCH8

CPCH9

CPCH10

CPCH11

CPCH12

CPCH13

CPCH14

CPCH15

CPCH16

CPCH17

CPCH18

CPCH19

CPCH20

CPCH21

CPCH22

CPCH23

CPCH24

CPCH25

CPCH26

CPCH27

CPCH28

CPCH29

CPCH30

Q Run Save Logout

```

1.
2. #include <stdio.h>
3. #include <stdlib.h>
4. #define max 100
5. int main()
6. {
7.     int n,i,lcm, product,gcd,lcm,arr[max],j=1;
8.     printf(" How many numbers do you want to enter?\n");
9.     scanf("%d ",&n); for(i=0;i<n;i++)
10.    {
11.        printf(" enter the %d. number: \n",i+1);
12.        scanf("%d ",&arr[i]); j=gcd = arr[0];
13.        while(j!=0) {
14.            if(arr[j]==gcd){ j++; }
15.            else
16.            { gcd=arr[j]/gcd; }
17.        }
18.        printf("GCD of all numbers is %d \n", gcd);
19.        product=l;
20.        for(i=0;i<n;i++){
21.            product=product*arr[i];
22.            lcm=product/gcd;
23.        }
24.        printf("LCM of all numbers is %d",lcm);
25.    return 0;
}

```

2
16
20

How many numbers do you want to enter?
 enter the 1. number:
 enter the 2. number:
 GCD of all numbers is 4.
 LCM of all numbers is 503362400

SIMIAT

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100017

Questions Ch. 10

Write a program to print Right Triangle Star Patterns.

Sample Inputs: $n = 5$

Output

四
四
四
四

Test Cases

CE041

```
1.
2.
3. #include <stdio.h>
4.
5. int main()
6. {
7.     int i, j, rows;
8.
9.
10.    printf("Enter number of rows: \n");
11.    scanf("%d", &rows);
12.
13.
14.    for(i=1; i<=rows; i++)
15.    {
16.
17.        for(j=i; j<rows; j++)
18.        {
19.            printf(" ");
20.        }
21.
22.
23.        for(j=i; j<i; j++)
24.        {
25.            printf("*");
26.        }
27.
28.
29.        printf("\n");
30.    }
31.
32.    return 0;
33. }
```

5

Enter number of rows:

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Questions

CE09.

Write a program to print Right Triangle Star Pattern.

Sample Input:: n = 5

Output:

```
*\n**\n***\n****\n*****
```

Test Cases

CE041
.....
.....
.....
.....
.....
.....
.....
.....
.....

C Run Save Logout

```
1.\n2.\n3. #include <stdio.h>\n4.\n5. int main()\n6. {\n7.     int i, j, rows;\n8.\n9.\n10.    printf("Enter number of rows: \n");\n11.    scanf("%d", &rows);\n12.\n13.\n14.    for(i=1; i<=rows; i++)\n15.    {\n16.\n17.        for(j=1; j<i; j++)\n18.        {\n19.            printf(" ");\n20.        }\n21.\n22.\n23.        for(j=i; j<=i; j++)\n24.        {\n25.            printf("*");\n26.        }\n27.\n28.\n29.        printf("\n");\n30.    }\n31.\n32.    return 0;\n33. }
```

5

Enter number of rows:

```
*
```



```
**
```



```
***
```



```
****
```



```
*****
```

Questions

CE-07.

Write a program to print the below pattern?

Test Cases

DEQ41

```
1. #include<stdio.h>
2. int main() {
3.     int i,j,row;
4.     printf("Enter number of rows: \n");
5.     scanf("%d",&row);
6.     for(i=1;i<=row;i++)
7.     {
8.         for(j=i;j>=row-i;j++)
9.         { printf("   ");
10.         }
11.         for(j=1;j<=i;j++)
12.         {
13.             printf(" %d ", j);
14.         }
15.         for(j=i-1;j>=1;j--)
16.         {
17.             printf(" %d ", j);
18.         }
19.         printf("\n");
20.     }
21.     return 0;
22. }
```

5

Enter number of rows:

1
1 2 1
1 2 3 2 1
1 2 3 4 3 2 1
1 2 3 4 5 4 3 2 1

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Questions

CE08.

Write a program using function to calculate the simple interest. Suppose the customer is a senior citizen. He is being offered 12 percent rate of interest; for all other customers, the ROI is 10 percent.

Sample Input:

Enter the principal amount: 200000

Enter the no of years: 3

Is customer senior citizen (y/n): n

Sample Output:

Interest: 60000

Test Cases

1. Principal: 2000 , Years: 0
2. Principal: 20000 , Years: 2
3. Principal: -2000 , Years: 2
4. Principal: 2 , Years: 2000
5. Principal: 0 , Years: 5

CE041



C Run Save Logout

```

1. #include<stdio.h>
2. int main()
3. {
4.     float p,interest,si;
5.     char c;
6.     printf("Enter the principal amount:");
7.     scanf("%f",&p);
8.     printf("\nEnter the number of years:");
9.     scanf("%d",&interest);
10.    printf("\nIs customer senior citizen(y/n):");
11.    scanf("%c",&c);
12.    if(c=='n')
13.    {
14.        si=(p*interest*10)/100;
15.        printf("\nSimple interest is %f",si);
16.    }
17.    else if(c=='y')
18.    {
19.        si=(p*interest*12)/100;
20.        printf("\nSimple interest is %f",si);
21.    }
22.    return 0;
23. }
```

200000
3
n

Enter the principal amount:
Enter the number of year:
Is customer senior citizen(y/n):
Simple interest: 60000 000000

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Questions

CE09

Write a C Program to Find Even Sum of Fibonacci Series Till number 10.

Sample Input: n = 4

Sample Output: 33
(n = 4, So here the Fibonacci series will be generated from 0th term till 8th term: 0, 1, 1, 2, 3, 5, 8, 13
sum of numbers at even indexes = 0 + 1 + 3 + 8 + 23 = 33)

Test Cases

CE041
Pass

C Run Save Logout

```
1. #include<stdio.h>
2. int main()
3. {
4.     int i,n,a=0,b=1,temp=0,sum=1;
5.     printf("enter the fibonacci series:");
6.     scanf("%d",&n);
7.     printf("\nthe fibonacci series:\n%d %d",a,b);
8.     i=2;
9.     while(i<n)
10.    {
11.        temp=a+b;
12.        a=b;
13.        b=temp;
14.        i++;
15.        printf("\t%d",temp);
16.        sum=sum+temp;
17.    }
18.    printf("\n sum of the number: %d", sum);
19.
20.    return 0;
21. }
```

B

```
enter the fibonacci series:
the fibonacci series:
0 1 1 2 3 5 8 13
sum of the number: 33
```

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ANJANA D
19/02/2017

SIMATS | Saveetha School of Engineering

Questions
CWD4

Write a program to print the all Odd numbers and number of even numbers in between N and M.

Sample Input:
N = 6
M = 15

Sample Output:
All Odd Numbers = 7,9,11,13

Test Cases

Case	N	M
1.	6	10
2.	10	15
3.	-5	4
4.	12	-22
5.	0	0

Run Save Logout

```
1. #include<stdio.h>
2. int main()
3. {
4. }
5. int i,m,n;
6. printf("Enter the start number:");
7.
8. scanf("%d",&m);
9. printf("\nEnter the end number: ");
10. scanf("%d",&n);
11. printf("\nEven numbers:");
12. {
13.     for(i=m;i<=n;i++)
14.     {
15.         if(i%2==0)
16.             printf("\t%d",i);
17.         printf("\nOdd number: "); for(i=m;i<n;i++)
18.             if(i%2!=0)
19.                 printf("\t%d",i);
20.     }
21. }
22. return 0;
23. }
```

6
15

Enter the start number:
Enter the end number:
Even number: 6
odd number: 7 9 11 13 15

Questions

GK

Write a program to print the longest word in the below text "Programming does wonders in the world".

Test Cases



```
1. #include <stdio.h>
2.
3. #include <string.h>
4.
5.
6. int main() {
7.
8.     char text[] = "programming does wonders in the world";
9.
10.
11.
12.     char *token = strtok(text, " ");
13.
14.     char *longest_word = token;
15.     while (token != NULL) {
16.
17.         if (strlen(token) > strlen(longest_word))
18.         {
19.             longest_word = token;
20.         }
21.     }
22.     token= strtok (NULL," ");
23. }
24.
25. printf("longest word: %s\n", longest_word);
26.
27. return 0;
28.
29. }
```

four input goes here...!!

1094

Longest word: programming

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ANJANA E
190121917

Questions

CH04.

Write a program to print n prime numbers then find the nth Prime number.

Sample Inputs:

n = 3

Sample Output:

3rd Prime number is: 5

3 prime numbers after 5 are: 7, 11, 13

Test Cases

- 1 N = 5
- 2 N = 9
- 3 N = 4
- 4 N = 19
- 5 N = 72

```

1. #include <stdio.h>
2.
3.
4. int is_prime(int num) {
5.     int i;
6.     for(i = 2; i <= num/2; i++) {
7.         if(num % i == 0) {
8.             return 0;
9.         }
10.    }
11.    return 1;
12. }
13.
14. int main() {
15.     int n, count = 0, num = 2;
16.     printf("Enter the value of n: ");
17.     scanf("%d", &n);
18.     printf("The first %d prime numbers are:\n", n);
19.     while(count < n) {
20.         if(is_prime(num)) {
21.             printf("%d ", num);
22.             count++;
23.         }
24.         num++;
25.     }
26.     printf("\n");
27.     printf("The %dth prime number is: %d\n", n, num-1);
28.     return 0;
29. }
```

3

Enter the value of n: The first 3 prime numbers are:
 2 3 5
 The 3th prime number is: 5

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ANJANA E
192121817Questions
CH205

Write a program in C to check Armstrong and perfect numbers using the function.

Test Data :

Input any number: 371

Expected Output :

The 371 is an Armstrong number.

The 371 is not a Perfect number.

Test Cases

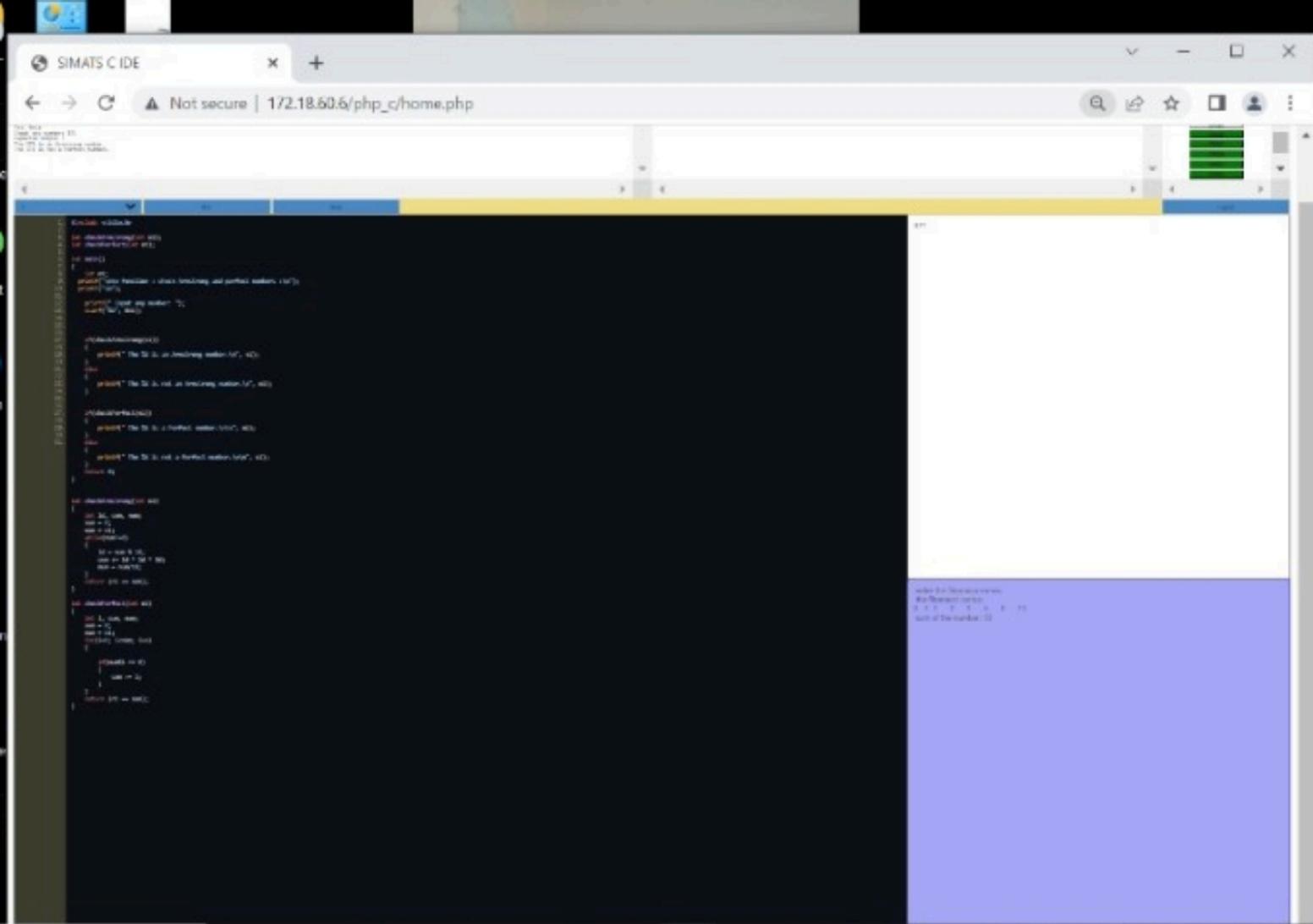
CH205

C	V	Run	Done	Logout
371				

```
1. #include <stdio.h>
2.
3. int checkArmstrong(int n1);
4. int checkPerfect(int n1);
5.
6. int main()
7. {
8.     int n1;
9.     printf("\n\n Function : check Armstrong and perfect numbers :\n");
10.    printf("\n");
11.
12.    printf(" Input any number: ");
13.    scanf("%d", &n1);
14.
15.
16.
17.    if(checkArmstrong(n1))
18.    {
19.        printf(" The Nd is an Armstrong number.\n", n1);
20.    }
21.    else
22.    {
23.        printf(" The Nd is not an Armstrong number.\n", n1);
24.    }
25.
26.
27.    if(checkPerfect(n1))
28.    {
29.        printf(" The Nd is a Perfect number.\n\n", n1);
30.    }
31.    else
32.    {
33.        printf(" The Nd is not a Perfect number.\n\n", n1);
34.    }
35. }
```

371

enter the fibonacci series:
The fibonacci series:
0 1 1 2 3 5 8 13
sum of the number: 33

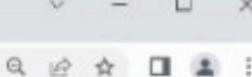




SIMATS C IDE



Not secure | 172.18.60.6/php_c/home.php



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ANJANA E
192121917

Questions CH08

In an organization they decide to give bonus to all the employees on New Year. A 5% bonus on salary is given to the grade A workers and 10% bonus on salary to the grade B workers. Write a program to enter the salary and grade of the employee. If the salary of the employee is less than 100,000 then the employee gets an extra 2% bonus on salary (calculate the bonus that has to be given to the employee and print the salary that the employee will get).

Sample Input & Output:

```
Enter the grade of the employee: B
Enter the employee salary: 50000
```

```
Salary=100000
Bonus=50000
```

```
<
```

C **V** Run Save

```
1 #include <stdio.h>
2
3 int main() {
4     int salary, grade;
5     float bonus;
6
7     printf("Enter employee's salary: ");
8     scanf("%d", &salary);
9
10    printf("Enter employee's grade (A=1, B=2): ");
11    scanf("%d", &grade);
12
13    if (salary < 10000) {
14        bonus = 0.07 * salary;
15    } else {
16        if (grade == 1) {
17            bonus = 0.05 * salary;
18        } else {
19            bonus = 0.1 * salary;
20        }
21    }
22
23    printf("Bonus amount: %.2f\n", bonus);
24    printf("Total salary: %.2f\n", salary + bonus);
25
26    return 0;
27
28
29
30
31}
```

Test Cases

1. Enter the grade of the employee: A
Enter the employee salary: 50000
2. Enter the grade of the employee: C
Enter the employee salary: 50000
3. Enter the grade of the employee: B
Enter the employee salary: 90000
4. Enter the grade of the employee: 100000
Enter the employee salary: A
5. Enter the grade of the employee: B
Enter the employee salary: 80000

50000

B

Logout

Enter employee's salary. Enter employee's grade.
(A=1, B=2). Bonus amount: 5000.00
Total salary: 55000.00

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Questions
CH28.Find the M^{th} maximum number and N^{th} minimum number in an array and then Find the sum of it and difference.

Sample Input:

Array of elements = {14, 38, 87, 16, 25, 89, 34}

 $M = 1$ $N = 3$

Sample Output:

1st Maximum Number = 89

3rd Minimum Number = 25

Sum = 114

Difference = 64

Test Cases

1. [16, 16, 16, 16, 16], M = 0, N = 1
2. [0, 9, 0, 0], M = 1, N = 2
3. [-12, -78, -25, -42, -85], M = 2, N = 3
4. [10, 18, 34, 56, 12], M = 5, N = 3
5. [85, 45, 65, 75, 85], M = 5, N = 7

CH28

CH29

CH30

CH31

CH32

CH33

CH34

CH35

CH36

CH37

CH38

CH39

CH40

CH41

CH42

CH43

CH44

CH45

CH46

CH47

CH48

CH49

CH50

CH51

CH52

CH53

CH54

CH55

CH56

CH57

CH58

CH59

CH60

CH61

CH62

CH63

CH64

C Run Save

```

1. #include<stdio.h>
2. #include<stdlib.h>
3. void bubble_sort(int arr[],int n)
4. {
5.     int i,j, temp;
6.     for(i=0;i<n-1;i++)
7.     {
8.         for(j=0;j<n-i;j++)
9.         {
10.             if(arr[j]>arr[j+1])
11.             {
12.                 temp=arr[j];
13.                 arr[j]=arr[j+1];
14.                 arr[j+1]=temp;
15.             }
16.         }
17.     }
18. }
19. }
20. }
21. int main(){
22.     int arr[]={14,16,87,38,25,89,34};
23.     int n = sizeof(arr)/sizeof(arr[0]);
24.     int m=0,n_val=2;
25.     bubble_sort (arr,n);
26.     int m_max=arr[n-m],n_min=arr[n_val-1];
27.     int sum=m_max+n_min,diff=m_max-n_min;
28.     printf("%th maximum number: %d\n",m_max);
29.     printf("%th minimum number: %d\n",n_min);
30.     printf("sum of %th maximum and %th minimum: %d\n",m_max+n_min);
31.     printf("difference of %th maximum and %th minimum: %d\n",m_max-n_min);
32. }
```

(14,16,87,38,25,89,34)

mth maximum number: 7
 nth minimum number: 4
 sum of mth maximum and nth minimum: 11
 difference of mth maximum and nth minimum: 3

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ANJANA E
192121017**Questions**

CMQ8

Write a C program to display the details of student(Name , Age) by passing structures to a function.

Sample Input :

Enter No. Students: 1

Enter student 1 Name, Age :AAA, 25

Sample Output:

Student 1 details:

Name: AAA

Age : 25

Test Cases

No Student: 4 (Any details of student)
No Student: 5
No Student: 1(62, 28)
No Student: A
No Student: 1(xxx, 28.2)

C Run Save Logout

```
1. #include<stdio.h>
2. #include<string.h>
3. #define MAX_STUDENTS 50;
4. struct student{
5.     char name[50];
6.     int age;
7. };
8. void displaystudents(struct student students[],int numstudents)
9. {
10.    int i;
11.    for(i=0;i<numstudents;i++)
12.    {
13.        printf("student %d:\n",i+1);
14.        printf("name: %s\n",students[i].name);
15.        printf("age:%d\n",students[i].age);
16.    }
17. }
18. int main(){
```

1
AAA,25

SIMATS

Saveetha School of Engineering

Questions
CMQ14.

Write a program in C to store n elements in an array and print the elements using pointer.

Test Data :

Input the number of elements to store in the array : 5

Input 5 number of elements in the array :

element - 0 : 5
element - 1 : 7
element - 2 : 2
element - 3 : 8
element - 4 : 6

Expected Output :

Test Cases

- 1 N = 16
- 2 N = 8
- 3 N = 0
- 4 N = -10.01
- 5 N = 11.22

```
1 #include<stdio.h>
2 int main(){
3     int n,i;
4     printf("enter element ");
5     scanf("%d",&n);
6     int arr[n];
7     printf("enter %d element",n);
8     for(i=0;i<n;i++){
9         scanf("%d",&arr[i]);
10    }
11    int *ptr=&arr;
12    printf("element array ");
13    for(i=0;i<n;i++){
14        printf("%d",*(ptr + i));
15    }
16    return 0;
17 }
```

5
2
3
4
5

enter element enter 5 element array
23451

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ANJANA E
152121017Questions
CMQ17

Write a program in C to compute the sum of all elements in an array using pointers.

Test Data :

Input 5 number of elements to store in the array (max 10) : 5

Input 5 number of elements in the array :

element - 1 : 2

element - 2 : 3

element - 3 : 4

element - 4 : 5

element - 5 : 6

Expected Output :

Test Cases

- 1 N = 0 1 3 8 7 , 6
- 1 N = 5 5 5 5 5 , 4
- 2 N = -2 2 -2 4 , 4
- 3 N = -5 6 5 36 0 5
- 4 N = 0 2 2 4 5 , 8

CMQ18
CMQ19
CMQ20
CMQ21
CMQ22
CMQ23
CMQ24
CMQ25
CMQ26
CMQ27
CMQ28
CMQ29

C Run Save Login

Your Input Goes Here...!!!

```
#include<stdio.h>
int main(){
    int arr[5]={4,5,6,7,8};
    int *ptr=arr;
    int sum=0;
    for(int i=0;i<5;i++){
        sum+=*(ptr+i);
    }
    printf("the sum :%d",sum);
    return 0;
}
```

the sum :30

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Question

CMQ11.

Write a Program to find the Maximum and Minimum value in a given array of numbers.

Sample Input:

```
Enter no. of elements in an array 5
Enter the elements:
1 2 3 4 5
```

Output:

```
Maximum of an array 5
Minimum of an array 1
```

Test Cases

CMQ18
CMQ18
CMQ18
CMQ18
CMQ17
CMQ17

The screenshot shows a C programming environment with the following code in the editor:

```
#include <stdio.h>
#include <conio.h>

int main()
{
    int a[1000], i, n, min, max;

    printf("Enter size of the array : ");
    scanf("%d", &n);

    printf("Enter elements in array : ");
    for(i=0; i<n; i++)
    {
        scanf("%d", &a[i]);
    }

    min = max = a[0];
    for(i=1; i<n; i++)
    {
        if(min>a[i])
            min = a[i];
        if(max<a[i])
            max = a[i];
    }

    printf("Minimum of array is : %d\n", min);
    printf("Maximum of array is : %d\n", max);
}
```

The interface includes tabs for Run and Save, and a status bar at the bottom with the message "Enter size of the array : Enter elements in array : minimum of array is : 1 maximum of array is : 4".