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Exp. 1

81)

```
#include <stdio.h>
int main()
{
  int marks[5];
  int sum = 0;
float  Average
printf("Enter Marks for 5 subject:\n");
for (i= 0; i<5; i+1) {
printf("Subject %d :", i+1);
scanf("%d", &marks[i]);
sum+ = marks[i];
}
Average = sum / 5.0;
printf("Average Marks = %.2f\n", Average);
return 0;
}
```

Output:-

Enter marks ~~of~~ for 5 subjects
Subject 1 : 87
Subject 2 : 78
Subject 3 : 83
Subject 4 : 85
Subject5 : 88

Average marks = 84.20

Q2)

```
#include <stdio.h>
int main()
{
  printf("Enter the number");
  scanf("%d", &num);
  if (num %2 == 0)
  {
     printf("%d is even ,\n", num);
  } else {
     printf("%d is odd, \n", num);
  }
  return 0;
}
```

Output :- Enter the number : 7
7 is odd

Q3)

```
#include<stdio.h>
int main()
{
  int num, i, isPrime;
 for (num=2; num<=50; num++){
  isPrime = 1;
  for (i=2; i*i<=num; i++){
  if (num%i==0){
  isPrime = 0;
  break;
 }
 }
  if (isPrime){
    printf("%d ",num);
 }
 }
  printf("\n");
  return 0;
}
```

Output -

2 3 5 7 11 13 17 19

Q 4)

```
#include <stdio.h>
int main() {
int num, reversed = 0, remainder, original;
printf("Enter an integer: ");
scanf("%d", &num);
original = num;
while(num != 0) {
remainder = num % 10;
reversed = reversed * 10 + remainder;
num /= 10;
}
if (original == reversed)
printf("%d is a palindrome.\n", original);
else
printf("%d is not a palindrome.\n", original);
return 0;
}
```

~~Output :- Day of the week type :-~~

~~Mon, Tue, Wed, Thurs, fri - weekday~~
~~Sat, Sun :- weekends.~~

Output :- Enter an integer : 141
141 is a palindrom.

8)

```
#include <stdio.h>
int main()
{
  int day;
printf("Days of the week and type \n");
for (day = 1; day <= 7; day++)
 {
  switch (day)
  {
  case 1:
  printf("Monday Tuesday wed, thur, fridays,
   weekend \n");
  break;
  case II
  printf("Sat, Sun, weekend");
  }
  return 0;
  }
```

Output :- Day of the week and Type.
Mon, Tue, Wed, Thurs, Fri - Weekday
Sat, Sun - Weekende.

13/11

Experiment - 1 Extra

Q. Find avg. of n numbers

→
```
#include <stdio.h>
int main() {
  int n, i;
  float sum = 0.0, avg, num;
  printf("Enter the number of element : ");
  if (scanf("%d", &n) != 1 || n <= 0) {
  printf("Invalid input ! Number of element must
  be a positive integer. \n");
  return 1;
}
for (i=0; i<n; i++) {
  printf("Enter number %d: ", i+1);
  if (scanf("%f", &num) != 1) {
  printf("Invalid input ! Please enter a valid
  number \n");
  return 1;
}
  sum += num;
  printf("Array = %.2f\n", avg);
  return 0;
}
```

Output :- Enter the value of n: 13
The average of first 13 numbers is : 7:00.

2) Display the for loop pattern.

```
*
# #
* * *
# # # #
```

→

```
#include <stdio.h>
int main(){
 int i,j;
for(i=1; i<=4; i++){
  for(j=1; j<=i; j++){
   if(i%2!=0){
  printf("*");
  }
  else {
   printf("#");
   }
   }
   }
   printf("\n");
  }
  return 0;
  }
```

3) Find the greatest & smallest element in the array.

→
```
#include <stdio.h>
int main(){
 int arr[5] = {10, 4, 56, 3, 89};
 int i;
 int big = arr[0];
 int small = arr[0];
 for (i=1; i<5; i++){
 if (arr[i] > big)
    big = arr[i];
 if (arr[i] < small)
    small = arr[i];
}
 printf("Greatest no = %d\n", big);
 printf("Smallest no = %d\n", small);
 return 0;
}
```

Output :-

Greatest number = 89
Smallest number = 3

4) first first repeating number in an array.

→
```
#include<stdio.h>
int main(){
 int arr[6]= {2,4,3,5,7,4};
 int i,j;
for(i=0; i<6; i++){
   for(j=i+1; j<6; j++){
if(arr[i]==arr[j]){
printf("first repeating number is: %d\n",
   arr[i]);
return 0;
}
}
}
 printf("No. repeating number found.\n");
 return 0;
}
```

Output:- First Reapeating number is: 4.