submitted by :

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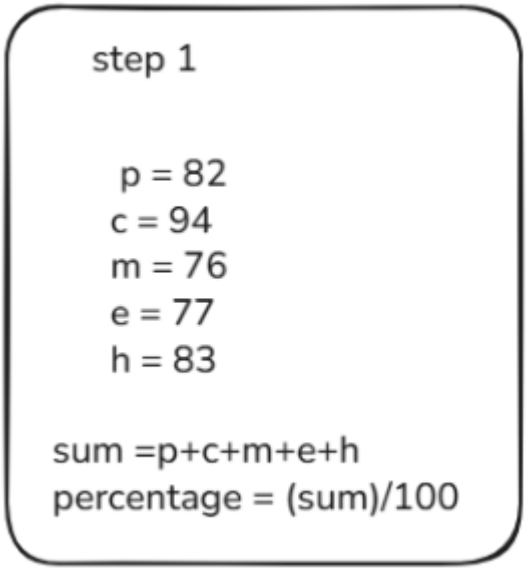
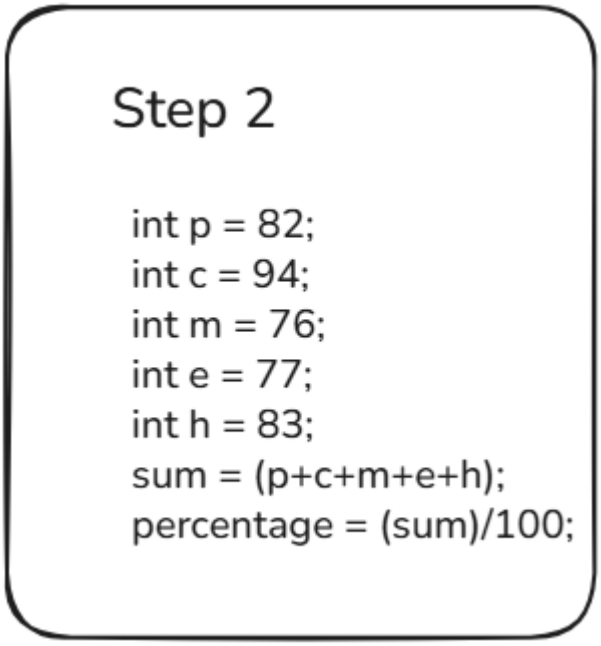
Exp no. 1 :- WAP that accepts the marks of 5 subjects and finds the sum and percentage marks obtained by the student.





```
// step 3

# include <stdio.h>

int main() {

int p = 82;
int c = 94;
int m = 76;
int e = 77;
int h = 83;

int sum  = p + c + m + e + h;
float per = (sum )/500.0 * 100;
printf("%f" , per);
}
```

// step 4

```
# include <stdio.h>

int main() {

    int physics  = 82;
    int chemistry  = 94;
    int mathematics = 76;
    int english = 77;
    int hindi = 83;

    int sum= physics + chemistry + mathematics + english + hindi;
    float percentage = (sum)/500.0 *100;
    printf("percentage : %f", percentage);
}
```

// step 5

```
# include <stdio.h>

int main() {

    int physics ;
    printf("enter the marks of physics :");
    scanf("%d", &physics);

    int mathematics;
    printf("enter the marks of mathematics :");
    scanf("%d", &mathematics);

    int chemistry ;
    printf("enter the marks of chemistry :");
    scanf("%d", &chemistry);

    int hindi ;
    printf("enter the marks of hindi:");
    scanf("%d", &hindi);

    int english ;
    printf("enter the marks of english :");
    scanf("%d", &english);

    int sum = physics + chemistry + mathematics + english + hindi;
    float percentage = (sum)/500.0 *100;
    printf("percentage of student is : %f", percentage);

}
```

```
// step 6

   # include <stdio.h>

int main() {

    int physics , chemistry , mathematics , hindi , english, sum;


    printf("enter the marks of physics :");
    scanf("%d", &physics);

    printf("enter the marks of mathematics :");
    scanf("%d", &mathematics);

    printf("enter the marks of chemistry :");
    scanf("%d", &chemistry);

    printf("enter the marks of hindi:");
    scanf("%d", &hindi);

    printf("enter the marks of english :");
    scanf("%d", &english);

    sum = physics + chemistry + mathematics + english + hindi;

    float percentage = (sum)/500.0 *100;
    printf("percentage of student is : %f", percentage);

}
```

Exp no. 2 :- WAP that calculate the simple interest and compound interest. The principal amount, rate of interest and time are entered through the keyboard.

Step 1

p = 7800
r = 5
t = 3

S.I = (p*r*t)/100

A = p*(1+r/100)^t

C.I = A - p

Step 2

```
int p = 7800;
int r = 5 ;
int t = 3;

int S.I = (p*r*t)/100;

int A = p*(1+r/100)^t;

int C.I = A - p ;
```

// step 3

```
# include <stdio.h>
# include <math.h>
int main () {

   int p = 7800;
   int r =5;
   int t = 3 ;

   float si = (p*r*t)/100.0;
   printf("%f\n", si);

   float A  =  p * pow(1+ r/100.0 ,t) ;
   printf("%f\n", A);

   float ci = (A - p) ;
   printf("%f", ci);

   return 0 ;
}
```

// step 4

```
# include <stdio.h>
# include <math.h>
int main () {

   int principle = 7800;
   int rate =5;
   int time = 3 ;

   float simple  = (principle*rate*time)/100.0;
   printf("%f\n", simple );

   float Amount  =  principle * pow(1+ rate/100.0 ,time) ;
   printf("%f\n", Amount);

   float compound  = (Amount - principle) ;
   printf("%f\n", compound);

   return 0 ;
}
```

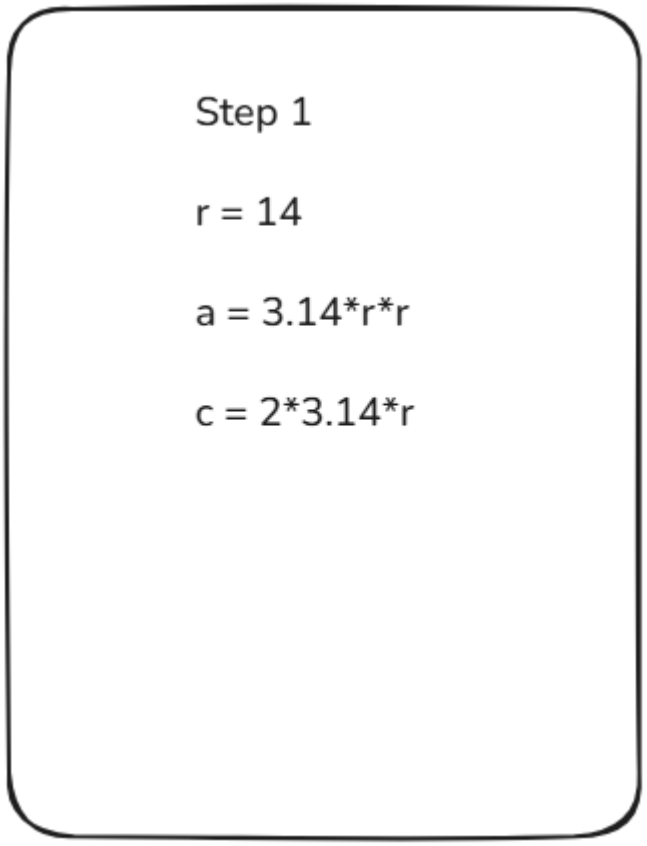
// step 5

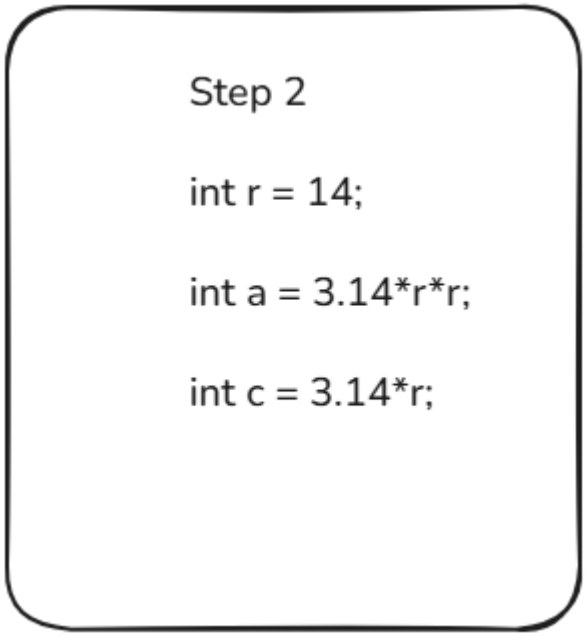
```
    # include <stdio.h>
# include <math.h>
int main () {

   int principle ;
   printf("enter the principle amount : ");
   scanf("%d" , &principle );

   int rate ;
   printf("enter the rate :");
   scanf("%d", &rate);

   int time ;
   printf("enter the time :");
   scanf("%d", &time);

   float simple  = (principle*rate*time)/100.0;
   printf("%f\n", simple );

   float Amount  =  principle * pow(1+ rate/100.0 ,time) ;
   printf("%f\n", Amount);

   float compound  = (Amount - principle) ;
   printf("%f\n", compound);

   return 0 ;
}
```

// step 6

```
   # include <stdio.h>
# include <math.h>
int main () {

   int principle,rate,time ;
   printf("enter the principle amount : ");
   scanf("%d" , &principle );


   printf("enter the rate :");
   scanf("%d", &rate);


   printf("enter the time :");
   scanf("%d", &time);

   float simple  = (principle*rate*time)/100.0;
   printf("%f\n", simple );

   float Amount  =  principle * pow(1+ rate/100.0 ,time) ;
   printf("%f\n", Amount);

   float compound  = (Amount - principle) ;
   printf("%f\n", compound);

   return 0 ;
}
```

Exp no. 3 :- WAP to calculate the area and circumference of a circle



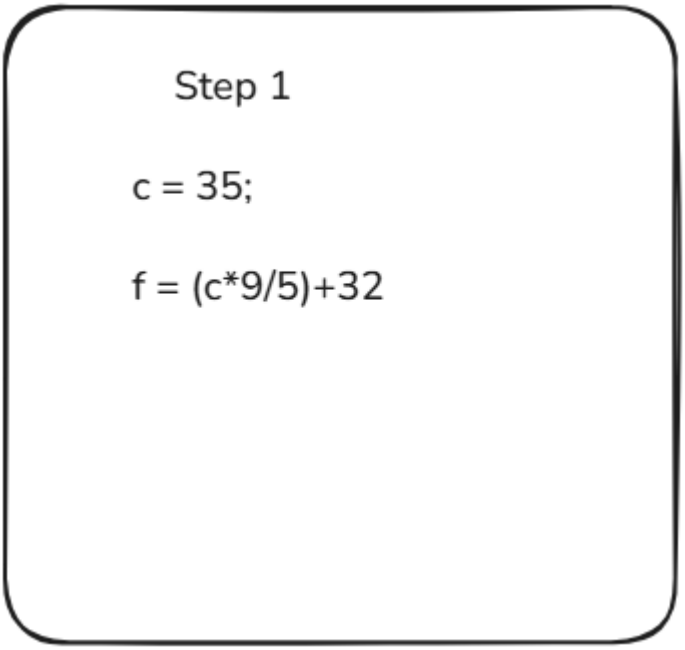


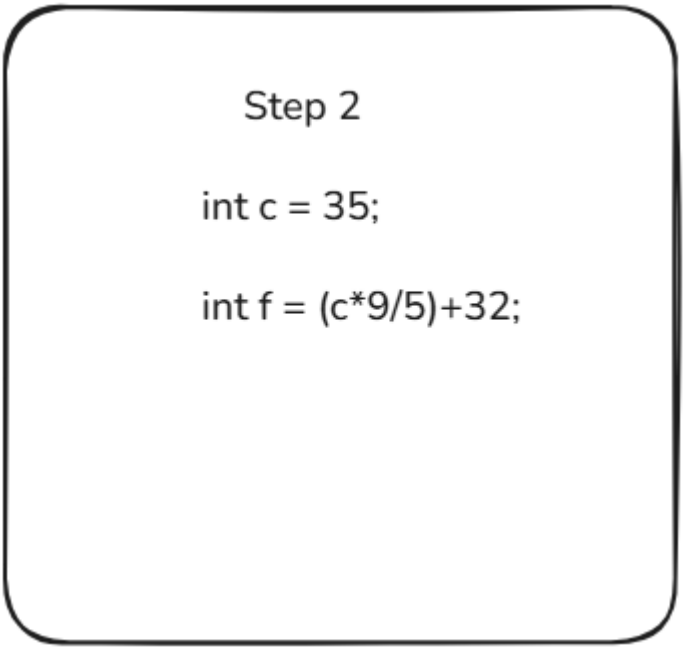
```
// step 3

# include <stdio.h>

int main() {
    int r= 14 ;
    float a = 3.14*r*r ;
    printf("%f\n", a);

    float c = 2*3.14*r;
    printf("%f\n", c);

    return 0 ;
}
```

```
// step 4

# include <stdio.h>


int main() {
    int radius = 14 ;
    float area = 3.14*radius*radius ;
    printf("%f\n", area);

    float circumference = 2*3.14*radius;
    printf("%f\n", circumference);

    return 0 ;

}
```

```
// step 5

# include <stdio.h>

int main() {
    int radius ;
    printf("enter the radius of circle :");
    scanf("%d", &radius);

    float area = 3.14*radius*radius;
    printf("area of circle is : %f\n", area);

    float circumference = 2*3.14*radius;
    printf("circumference of circle is : %f\n", circumference);

}
```

Exp no. 4 :- WAP that accepts the temperature in Centigrade and converts into Fahrenheit using the formula C/5=(F-32)/9.





```
// step 3

# include <stdio.h>
int main(){
    int c = 35 ;
    float f = (c*9/5)+32 ;

    printf("%f", f);
}
```

// step 4

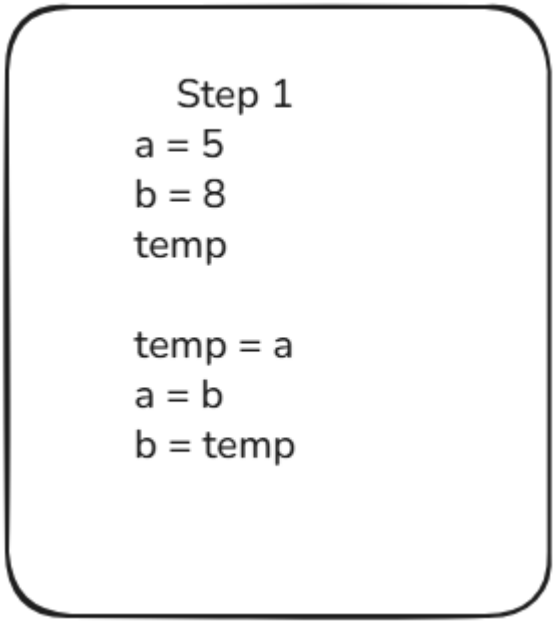
```
# include <stdio.h>
int main(){
    int celcius = 35 ;
    float fahrenheit = (celcius*9/5)+32;

    printf("temprature in fahrenheit is : %f", fahrenheit);
}
```

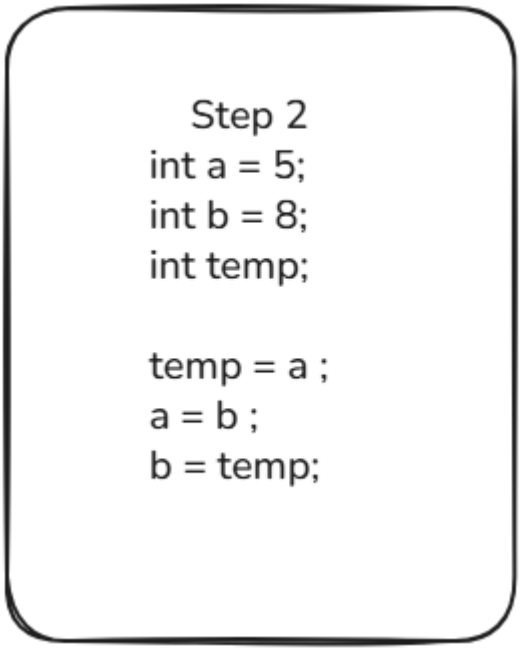
```
//step 5

   # include <stdio.h>
int main(){
   int celcius;
   printf("enter the temprature in celcius :");
   scanf("%d", &celcius);

   float fahrenheit = (celcius*9/5)+32;
   printf("temprature in fahrenheit is : %f ", fahrenheit);

}
```

//step 6

```
        # include <stdio.h>
int main(){
   int celcius;
   printf("enter the temprature in celcius :");
   scanf("%d", &celcius);

   float fahrenheit = (celcius*9/5)+32;
   printf("temprature in fahrenheit is : %f ", fahrenheit);

        }
```

Exp no. 5 :- WAP that swaps values of two variables using a third variable.





// step 3

```
  # include <stdio.h>
int main() {

   int a= 5;
   int b = 8 ;
  int  temp ;

   temp = a ;
   a = b ;
   b = temp ;

   printf ("the value of a after swapping : %d\n", a);
   printf ("the value of b after swapping : %d\n", b);


return 0;
 }
```

// step 4

```
# include <stdio.h>
int main() {

   int  firstnum = 5;
   int secondnum = 8 ;
  int  temp ;

   temp = firstnum;
   firstnum = secondnum ;
   secondnum = temp ;

   printf ("the value of firstnum after swapping : %d\n", firstnum);
   printf ("the value of secondnum after swapping : %d\n", secondnum);

   return 0 ;

   }
```

// step 5

```
# include <stdio.h>
int main() {

   int firstnum;
   printf("enter the firstnum :");
   scanf("%d", &firstnum);

   int secondnum ;
   printf("enter the secondnum :");
   scanf("%d", &secondnum );

   int temp ;
   temp = firstnum;
   firstnum = secondnum ;
   secondnum = temp;

   printf ("the value of firstnum after swapping : %d\n", firstnum);
   printf ("the value of secondnum after swapping : %d\n", secondnum);

    return 0 ;
}
```

// step 6

```
 # include <stdio.h>
int main() {

   int firstnum , secondnum ;
   printf("enter the firstnum :");
   scanf("%d", &firstnum);


   printf("enter the secondnum :");
   scanf("%d", &secondnum );

   int temp ;
   temp = firstnum;
   firstnum = secondnum ;
   secondnum = temp;

   printf ("the value of firstnum after swapping : %d\n", firstnum);
   printf ("the value of secondnum after swapping : %d\n", secondnum);

    return 0 ;   }
```

Exp no. 6 : WAP that checks whether the two numbers entered by the user are equal or no

Step 1

```
a = 5
b = 5

if a = b
print a equal to b

else
a not equal to b
```

Step 2

```
int a = 5;
int b = 5 ;

if (a==b){
print a equal to b
}
else {
print a not equal
to b }
```

// Step 3

```
# include <stdio.h>
int main(){

   int a = 5 ;
   int b = 5 ;
   if (a==b) {
      printf("the numbers are equal\n");
   }
      else {
         printf("the numbers are not equal\n");
      }
      return 0 ;
   }
```

// step 4

```
        # include <stdio.h>
int main(){

   int firstnum = 5 ;
   int secondnum = 5 ;

   if (firstnum == secondnum) {
      printf("the numbers are equal\n");
   }
      else {
         printf("the numbers are not equal\n");
      }
      return 0 ;
   }
```

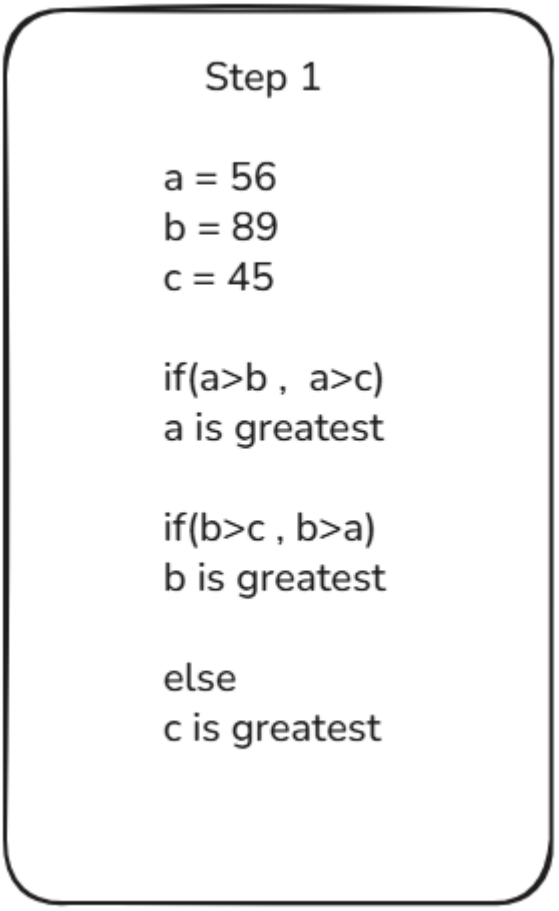
// step 5

```
        # include <stdio.h>

int main(){

    int firstnum;
    printf("enter the firstnum : ");
    scanf("%d", &firstnum);

    int secondnum;
    printf("enter the secondnum :");
    scanf("%d", &secondnum );

    if (firstnum == secondnum){
        printf("the numbers are equal\n");
    }
    else {
        printf(" the numbers are not equal");
    }

}
```

//step 6

```
        # include <stdio.h>

int main() {

   int firstnum , secondnum ;
   printf("enter the firstnum : ");
   scanf("%d", &firstnum);


   printf("enter the secondnum :");
   scanf("%d", &secondnum );

   if (firstnum == secondnum){
      printf("the numbers are equal\n");
   }
   else {
      printf(" the numbers are not equal");
   }
}
```

Exp no. 7 :- WAP to find the greatest of three numbers.



Step 2

```
int a = 56;
int b = 89;
int c = 45;

if(a>b ,&& a>c) {
a is greatest}

if(b>c , && b>a){
b is greatest

else {
c is greatest}
```

// step 3

```
    # include <stdio.h>

int main() {

   int a = 56;
   int b = 89;
   int c = 45;

   if(a>=b && a>=c) {
      printf("a is greatest\n");
   }

   else if (b>=a &&b>=c) {
      printf("b is greatest\n");
   }
   else {
      printf("c is greatest\n");
   }
    return 0 ;
   }
```

// step 4

```
# include <stdio.h>

int main() {

   int firstnum = 56;
   int secondnum = 89;
   int thirdnum = 45;

   if(firstnum>=secondnum && firstnum >=thirdnum) {
      printf("firstnum is greatest\n");
   }

   else if (secondnum>=firstnum && secondnum>=thirdnum) {
      printf("secondnum is greatest\n");
   }
   else {
      printf("thirdnum is greatest\n");
   }
    return 0 ;
}
```

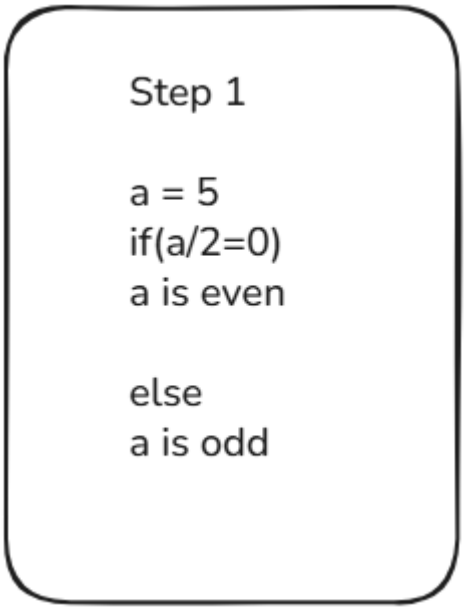
// step 5

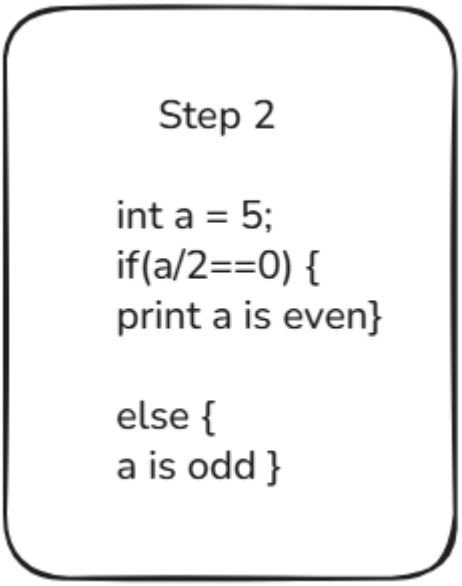
```
# include <stdio.h>

int main() {

   int firstnum ;
   printf("enter the first number:") ;
   scanf("%d", &firstnum);

   int secondnum ;
   printf("enter the second number :");
   scanf("%d", &secondnum);

   int thirdnum ;
   printf("enter the third number :");
   scanf("%d", &thirdnum);

   if(firstnum>=secondnum && firstnum >=thirdnum) {
      printf("firstnum is greatest\n");
   }

   else if (secondnum>=firstnum && secondnum>=thirdnum) {
      printf("secondnum is greatest\n");
   }
   else {
      printf("thirdnum is greatest\n");
   }
    return 0 ;

}
```

// step 6

```
        # include <stdio.h>

int main() {

   int firstnum , secondnum , thirdnum ;

   printf("enter the first number:") ;
   scanf("%d", &firstnum);


   printf("enter the second number :");
   scanf("%d", &secondnum);


   printf("enter the third number :");
   scanf("%d", &thirdnum);

   if(firstnum>=secondnum && firstnum >=thirdnum) {
      printf("firstnum is greatest\n");
   }

   else if (secondnum>=firstnum && secondnum>=thirdnum) {
      printf("secondnum is greatest\n");
   }
   else {
      printf("thirdnum is greatest\n");
   }
    return 0 ;
}
```

Exp no. 8 :- WAP that finds whether a given number is even or odd





// step 3

```
        # include <stdio.h>

int main() {

   int a = 5 ;

   if(a/2==0) {
      printf("the number  is even\n");
   }

   else {
      printf("the number is odd\n");
   }
   return 0 ;
   }
```

// step 4

```
# include <stdio.h>

int main() {

   int num = 5 ;

   if(num/2==0) {
      printf("the number  is even\n");
   }

   else {
      printf("the number is odd\n");
   }
   return 0 ;
   }
```

```
// step 5

# include <stdio.h>

int main() {

    int num ;
    printf("enter thenumber :");
    scanf("%d", &num);

    if(num/2==0) {
        printf("the number is even\n");
    }
        else {
            printf("the number is odd\n");
        }
        return 0 ;
    }
```

// step 6

```
# include <stdio.h>

int main() {

   int num ;
   printf("enter thenumber :");
   scanf("%d", &num);

   if(num/2==0) {
      printf("the number is even\n");
   }
      else {
         printf("the number is odd\n");
      }
      return 0 ;
```

Exp no. 9 :- WAP that tells whether a given year is leap year or not.

Step 1

a = 2025

if (a / 4 = 0)

a is leap year

else
a is non leap year

Step 2

```
int a = 2025;

if(a/4==0) {
a is leap year}

else {
a is non leap year}
```

// step 3

```
# include <stdio.h>

int main() {

    int y = 2025;
    if(y/4==0) {
        printf("the year is leap year\n");
    }

    else {
        printf("the year is non leap year ");
    }
    return 0 ;
    }
```

//step 4

```
        # include <stdio.h>
        int main() {

        int year = 2025;
if(year/4==0) {
   printf("the year is leap year\n");
}

else {
   printf("the year is non leap year ");
}
return 0 ;
}
```

// step 5

```
# include <stdio.h>
   int main() {

      int year ;
      printf("enter the year :");
      scanf("%d", &year);

if(year/4==0) {
   printf("the year is leap year\n");
}
else {
   printf("the year is non leap year ");
}
return 0 ;
}
```

// step 6

```
# include <stdio.h>
   int main() {

      int year ;
      printf("enter the year :");
      scanf("%d", &year);

   if(year/4==0) {
      printf("the year is leap year\n");
   }
   else {
      printf("the year is non leap year ");
   }
   return 0 ;
}
```

Exp no. 10 :- WAP that accepts marks of five subjects and finds percentage and prints grades according to the following
criteria:
Between 90-100%----------Print ‘A’
80-90%----------Print ‘B’
60-80%----------Print ‘C’
Below 60%----------Print ‘D’

step 1

p = 82
c = 94
m = 76
e = 77
h = 83

sum = (p+c+m+e+h)
per = (sum/500)*100

if per between 90-100% - A
If per between 80-90% - B
if per between 60-80% - C
if per below 60% - D

step 2

```
int p = 82;
int c = 94;
int m = 76;
int e = 77;
int h = 83;

int sum = (p+c+m+e+h);
int per = (sum/500)*100;
```

if 90<per<100 - grade A
if 80<per<90 - grade B
if 60<per<80 - grade C
if per below 60% - grade D

// step 3

```
        # include <stdio.h>

int main() {

    int p = 82;
    int c = 94;
    int m = 76;
    int e = 77;
    int h = 83;

    int sum  = p + c + m + e + h;
    float per = (sum )/500.0 * 100 ;

    if(per>= 90){
        printf("grade A \n");
    }

    if(per>=80 && per<90) {
        printf("grade B \n");
    }

    if(per>=60 && per<80) {
        printf("grade C\n");
    }

    if(per<60) {
        printf("grade D \n");
    }

    return 0 ;

}
```

```
// step 4

      # include <stdio.h>

int main() {

   int physics = 82;
   int chemistry = 94;
   int mathematics = 76;
   int english = 77;
   int hindi = 83;

   int sum  = physics + chemistry + mathematics + english + hindi;
   float per = (sum )/500.0 * 100 ;

   if(per>= 90){
      printf("grade A \n");
   }

   if(per>=80 && per<90) {
      printf("grade B \n");
   }

   if(per>=60 && per<80) {
      printf("grade C\n");
   }

   if(per<60) {
      printf("grade D \n");
   }

   return 0 ;

}
```

```
// step 5
            # include <stdio.h>

int main() {

   int physics ;
   printf("enter the marks of physics :");
   scanf("%d", &physics);

    int mathematics;
   printf("enter the marks of mathematics :");
   scanf("%d", &mathematics);

    int chemistry ;
   printf("enter the marks of chemistry :");
   scanf("%d", &chemistry);

      int hindi ;
   printf("enter the marks of hindi:");
   scanf("%d", &hindi);

    int english ;
   printf("enter the marks of english :");
   scanf("%d", &english);


   int sum  = physics + chemistry + mathematics + english + hindi;
   float per = (sum )/500.0 * 100 ;

   if(per>= 90){
      printf("grade A \n");
   }

   if(per>=80 && per<90) {
      printf("grade B \n");
   }

   if(per>=60 && per<80) {
      printf("grade C\n");
   }
```

// step 6

```
        # include <stdio.h>

int main() {

   int physics, chemistry, mathematics, hindi, english;
   printf("enter the marks of physics :");
   scanf("%d", &physics);


   printf("enter the marks of mathematics :");
   scanf("%d", &mathematics);


   printf("enter the marks of chemistry :");
   scanf("%d", &chemistry);


   printf("enter the marks of hindi:");
   scanf("%d", &hindi);


   printf("enter the marks of english :");
   scanf("%d", &english);


   int sum  = physics + chemistry + mathematics + english + hindi;
   float per = (sum )/500.0 * 100 ;

   if(per>= 90){
      printf("grade A \n");
   }

   if(per>=80 && per<90) {
      printf("grade B \n");
   }

   if(per>=60 && per<80) {
      printf("grade C\n");
   }
```