

## Functions.

write C programme to reverse given 3 digit integer  
use function to perform the task.

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

```
int revers (int number);
```

```
int main ( ) {
```

```
int number;
```

```
int revers;
```

```
printf ("please enter the number\n");
```

```
scanf ("%d", &number);
```

```
result = revers (number)
```

```
printf ("the result is %d, result);
```

```
return 0;
```

```
}
```

```
int revers (int number); {
```

```
int result;
```

```
int d1, d2, d3;
```

```
d1 = number % 10;
```

```
d2 = number / 10 % 10;
```

```
d3 = number / 100;
```

```
result = d1 * 100 + d2 * 10 + d3;
```

```
return result;
```

```
}
```



write a C programme to find the are for a given circle (radius) your program should contain at least one function.



Q. ↓  
# include <stdio.h>  
# include <math.h>  
# define PI 3.14



double get\_area (double radius)

int main() {

double a;

double r;

printf ("please enter the radius \n");

scanf ("%lf", &r);

a = get\_area (r);

printf ("The area for a given circle is %f", a);

return 0;

double get-area (double radius) {

area = PI \* pow(r, 2);

return area;

}



Q1-

```
#include <stdio.h>
#include <math>
#define PI 3.14
```

```
double get-area( );
```

```
int main( ) {
```

```
double area;
```

```
area = get-area;
```

```
printf (" The area for given circle is %f", area);
```

```
return 0;
```

}

```
double get-area( ) {
double radius;
```

```
double area;
```

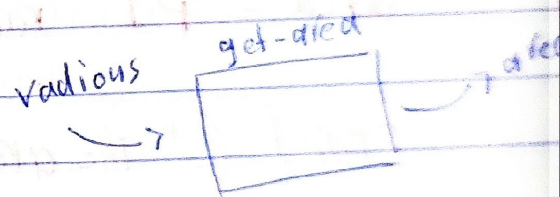
```
printf (" please enter the radius \n");
scanf ("%f", & radius);
```

```
area = PI * radius * radius
```

```
return area;
```

}

isole  
3.14



Q. 1

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

```
#define PI 3.14
```

```
void print-area (double radius);
```

```
int main() {
```

```
double radius;
```

```
printf (" please enter the radius\n");
```

```
scanf ("%f", &radius);
```

```
print-area (radius);
```

```
return 0;
```

```
} void print-area (double radius) {
```

```
double area;
```

```
area = PI * radius * radius;
```

```
printf (" the area for a given circle is %f", area);
```

area; →

→

radius

print-area

area



Q1

```
#include <stdio.h>
#define PI 3.14
```

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```
void print-area( );
int main {
```



```
print-area( );
return 0;
```

}

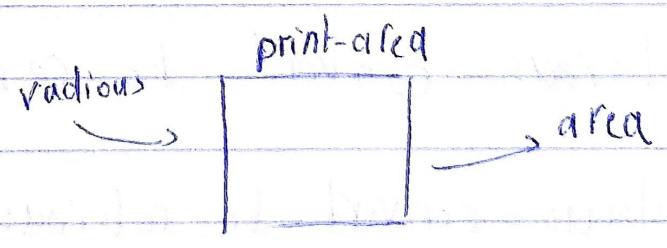
```
void print-area( ) {
```

```
double radius;
double area;
```

```
printf ("please enter the radius \n");
scanf ("%lf", & radius);
```

```
area = PI * radius * radius;
```

```
printf ("The area for a given circle is %f", area);
```





write a c program to find the temp in Celsius for given depth among the earth surface using the following functions:-

$$\text{temp in feh} = 10 * \text{depth} + 20$$

$$\text{temp in cels} = (\text{temp in feh} - 32) * \frac{9}{5}$$

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

```
double temp-at-depth (double depth);
```

```
double convert-to-celsius (double feh);
```

```
int main() {
```

```
double depth;
```

```
double feh;
```

```
double celsius;
```

```
printf (" please enter the depth\n");
```

```
scanf ("%lf", &depth);
```

```
feh = temp-at-depth (depth);
```

```
celsius = convert-to-celsius (feh);
```

```
celsius = convert-to-celsius (temp-at-depth (depth));
```

```
printf (" The result in celsius %f", celsius);
```

```
return 0;
```

```
}
```



```
double temp_at_depth (double depth) {
```

```
double Feh;
```

```
Feh = 10 * depth + 20;
```

```
}
```

```
double convert_to_celsius (double Feh) {
```

```
double celsius;
```

```
celsius = (Feh - 32) * 9.0 / 5.0;
```

```
return celsius;
```

```
}
```



write a program that read a character from user and find if it is vowel or not.

Note: Create a function that do this job:-

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

```
int is-vowel (char mychar);
```

```
int main() {
```

```
char x;
```

```
printf (" please enter a character");
```

```
scanf ("%c", &x);
```

```
int result = isVowel (x);
```

```
if (result == 1) { printf ("It is a vowel"); }
```

```
return 0;
```

```
}
```

```
int is-vowel (char mychar) {
```

```
if (mychar == 'a' || mychar == 'i' || mychar == 'o'  
    || mychar == 'e' || mychar == 'u')
```

```
{
```

```
return 1;
```

```
}
```

```
else
```

```
{
```

```
return 0;
```

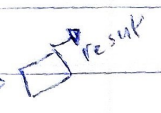
```
}
```

```
}
```

```
else {
```

```
printf ("It is not a  
vowel");
```

```
}
```



a  
i  
e  
o  
u

Rewrite the following mathematical expression using C functions:-

$$X = b^2 + c^2 - 2bc$$

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

```
int s (int);
int s2 (int);
int main()
{
```

```
int b, c, r;
printf ("please enter the value of b,c");
scanf ("%d %d", &b, &c);
```

```
r = s(b) + s2(c) - 2 * b * c;
```

```
printf ("the Final result = %d", r);
return 0;
```

```
}
```

```
int s (int b)
```

```
{
return (b * b);
```

```
}
```

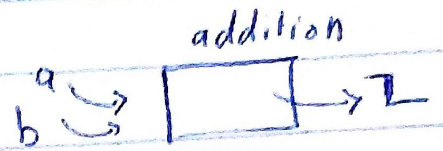
```
int s2 (int c) {
return (c * c);
```

```
}
```



← اکتیپ پروگرام بدخل ناسخ دمج ایآ عربین .

```
#include <stdio.h>
int addition (int a, int b);
```



```
int main( ) {
```

```
int r;
```

```
int a;
```

```
int b;
```

```
printf ("please enter the value of a, b");
```

```
scanf ("%d %d", &a, &b);
```

```
r = addition(a, b);
```

```
printf ("The final result = %d", r);
```

```
return 0;
```

```
}
```

```
int addition (int a, int b);
```

```
int z;
```

```
z = a + b;
```

```
return z;
```

```
}
```

$$\text{root} = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

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

```
double root-1 (int a, int b, int c);
double root-2 (int a, int b, int c);
```

```
int main() {
```

```
int a, b, c;
```

```
double result-1, result-2;
```

```
printf ("please enter the value of a, b, c");
```

```
scanf ("%d %d %d", &a, &b, &c);
```

```
result-1 = root-1 (a, b, c);
```

```
result-2 = root-2 (a, b, c);
```

```
printf ("the first answer = %f", result-1);
```

```
printf ("the second answer = %f", result-2);
```

```
return 0; }
```

```
double root-1 (int a, int b, int c);
```

```
double r1 = (-b + sqrt (pow (b, 2) - 4 * a * c)) / 2 * a;
```

```
return r1;
```

```
}
```

```
double root-2 (int a, int b, int c);
```

```
double r2 = (-b - sqrt (pow (b, 2) - 4 * a * c)) / 2 * a;
```

```
return r2; }
```



write a c program to find the distance between two points  
x-y coordinate  $(x_1, y_1)$   $(x_2, y_2)$

$$\text{distance} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

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

```
int main() {
double x1, y1, x2, y2;
double distance;
printf ("please enter the first point\n");
scanf ("%f %f", &x1, &y1);
printf ("please enter the second point\n");
scanf ("%f %f", &x2, &y2);
distance = sqrt (pow(x2-x1, 2) + pow(y2-y1, 2));
printf ("Result is = %f", distance);
return 0;
}
```

write a c program to find whether a given polynomial with degree = 2 is solvable or Not.

$$ax^2 + bx + c$$
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

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

```
float a, b, c, x;
```

```
printf("please enter the coeff of a, b and c\n");
```

```
scanf("%f %f %f", &a, &b, &c);
```

```
x = pow(b, 2) - 4 * a * c;
```

```
if (x >= 0)
```

```
printf("equation is solvable");
```

```
else
```

```
printf("equation is Not solvable");
```

```
return 0;
```

```
}
```



Write a function to return the square of an integer number ?

مربع العدد

```
#include <stdio.h>
#include <math.h>
int get-square (int x);
int main() {
int num, result;
```

```
printf ("The final result %d", result);
return 0;
}
int get-square (int x) {
int m;
m = x * x;
return m;
}
```

Thursday, November 05, 2015

Abdallah Karakra



```
printf (" please enter the number");
scanf ("%d", &num);
result = get-square (num);
```