

```
//H.1
```

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

```
#include <stdlib.h>
```

```
void display( float a, float b, char ch, float r); void add (float
```

```
void multiply (float a, float b);
```

```
void divide ( float a, float b);
```

```
int main()
```

```
do{
```

```
printf("Enter two numbers :
```

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

```
printf("\n1.Addition");
```

```
printf("\n2.Subtraction");
```

```
printf("\n3.Multiplication")
```

```
printf("\n4.Division");
```

```
printf("\n5.Exit");
```

```
printf("\nEnter your choice:
```

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

```
case 5: exit(0);
```

```
default: printf("\nInvalid in
```

```
}
```

```
} while(1); return 0;
```

```
}
```

```
void add (float a, float b){
```

```
float r = a+b;
```

```
display (a, b, '+', r);
```

```
}
```

```
void subtract (float a, float
```

```
float r = a-b;
```

```
display (a, b, '-', r);
```

```
}
```

```
void display( float a, float
```

```
}
```

```
//H.2
```

```
int isPerfect (int n);
```

```
int main()
```

```
{
```

```
int i, n, ch;
```

```
printf("Enter any integer: "
```

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

```
printf ("\n1. Factors of the
```

```
printf ("\n5. Number is in F
```

```
printf ("\n7. Number is Arms
```

case 1: factors (int n);

break;

case 2: primeFactors (int n)

break;

case 3: factorial (int n);

break;

case 4: isPrime (int n);

break;

case 5: isFibonacci (int n);

break;

case 6: count (int n);

break;

```
int factors (int n) {  
  
    int i;  
  
    printf("Factors of %d are :"  
  
    for (i = 1; i <= n; ++i){  
  
        if(n % i == 0);  
  
        {  
  
            printf("%d\t", i);  
  
        }  
  
    }  
  
}
```

```
int factorial (int n) {
```

```
int i, ifPrime,
```

```
for( i=2; i<=n-1; i++)
```

```
{
```

```
if(n % i ==0)
```

```
{ ifPrime = 0; } else { ifPr
```

```
}
```

```
return (ifPrime);
```

```
}
```

```
int count (int n) {
```

```
int cnt = 0;
```

```
if(n> 0){
```



```
int s = sqrt(n),
```

```
if(s*s == n)
```

```
return 1;
```

```
else
```

```
return 0;
```

```
}
```

```
int primeFactors (int n) {
```

```
int n;
```

```
factors( isPrime( n));
```

```
}
```

```
{  
  
for(int j = 0; j < n-1; j++)  
  
{  
  
if([j] > a[j+1])  
  
{  
  
int temp = a[j];  
  
a[j] = a[j+1];  
  
a[j+1] = temp;  
  
}  
  
}  
  
}  
  
}
```

```
return 0;
```

```
}
```

```
}
```

```
}
```

```
int main()
```

```
{
```

```
int n, m;
```

```
printf ("Enter the size of t
```

```
\n");
```

```
scanf ("%d %d", &n, &m);
```

```
{
```

```
scanf( "%d" ,&a2[i] );
```

```
}
```

```
if( isEqual( a1, a2,n,m) == 0
```

```
{
```

```
printf("Arrays are NOT equal\n");
```

```
}
```

```
else("Arrays are same.");
```

```
return 0;
```

```
}
```

```
int main()
```

```
{
```

```
int mat[5][5],i,j, n;
```

```
printf("Enter the order N of
```

```
printf("Enter the elements o
```

```
for(i=0;i<n;i++) // scanning
```

```
{
```

```
scanf("%d",&mat[i][j]);
```

```
{
```

```
printf("%d\t",mat[i][j]);
```

```
}
```

```
printf("\n");
```

```
}
```

```
makeDaigonalZero(mat);
```

```
printf("The matrix after mak
```

```
for(i=0;i<n;i++)
```

```
{
```

```
for(j=0;j<n;j++)
```

```
{
```

```
for(i=0;i<n;i++)  
  
{ for(j=0;j<n;j++)  
  
{  
  
if(i==j || (i+j+1) == n) mat  
  
}  
  
printf("\n");  
  
}  
  
}
```

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

```
printf("Enter the numbers: "
```

```
scanf ("%d" , &a[i]) ;
```

```
doSort(a) ;
```

```
printf("The number arranged
```

```
for(i=0; i<n; i++)
```

```
{
```

```
printf ("%d\n" , a[i]) ;
```

```
}
```

```
return 0 ;
```

```
}
```



```
{
```

```
int e = a[j];
```

```
a[j] = a[j+1];
```

```
a[j+1] = e;
```

```
}
```

```
}
```

```
}
```

```
}
```