**LAB STRING AND FUNCTION**

Answer 1

/\*1. Input some words and store them in a 2D array. Display which words contains how many vowels.\*/

#include<stdio.h>

int main()

{

char x[5][100];

int i,j,c = 0,vowel = 0;

printf("Enter a sentence :\n");

for(i=0;i<5;i++)

{

scanf("%s",x[i]);

}

for (i=0;i<5;i++)

{ vowel = 0;

for (j=0;x[i][j]!='\0';j++)

{

if (x[i][j]=='a'|| x[i][j] == 'e' ||x[i][j] == 'i' ||x[i][j] == 'o' ||x[i][j] == 'u' ||x[i][j] == 'A' ||x[i][j] == 'E' ||x[i][j] == 'I' ||x[i][j] == 'O' ||x[i][j] == 'U')

{

vowel=vowel+1;

}

}

printf("%s contain %d vowels\n",x[i],vowel);

}

return 0;

}

Answer 2

/\*2. Input some words and store them in a 2D array. Display which letters contains the most number

of ‘t’.\*/

#include<stdio.h>

int main(){int i,j,f,n;

printf("How many strings?:\n");

scanf("%d",&f);

char a[f][100];

printf("Please enter strings:\n ");

for(i=0;i<f;i++){

scanf("%s",a[i]);

}

int max=0;

for(i=0;i<f;i++){int l=0;

for(j=0;a[i][j]!='\0';j++){if(a[i][j]=='t'||a[i][j]=='T'){

l++;

}

}

if(l>max){

max=l;

n=i;

}

}printf("The letter with most t: %s",a[n]);

}

Answer 3

/\*3. Input some words and store them in a 2D array. Display the longest word.\*/

#include<stdio.h>

int main(){int i,j,f,n;

printf("How many strings?:");

scanf("%d",&f);

char a[f][100];

printf("Please enter strings:\n ");

for(i=0;i<f;i++){

scanf("%s",a[i]);

}

int max=0;

for(i=0;i<f;i++){int l=0;

for(j=0;a[i][j]!='\0';j++){l++;

}

if(l>max){

max=l;

n=i;

}

}printf("The longest word %s",a[n]);

}

Answer 4

/\*4. Input some words and store them in a 2D array. Display the words in all uppercase format.\*/

#include<stdio.h>

#include<string.h>

int main()

{

char s[100];

int i;

printf("Enter a sentence : \n");

gets(s);

for(i=0;s[i]!='\0';i++)

{

if(s[i] >= 'a' && s[i] <= 'z')

{

s[i] = s[i] - 32;

}

}

printf("Converted sentence in upper case \n%s",s);

}

Answer 5

/\*5. Input some words and store them in a 2D array. Display the words all vowels in uppercase and

all consonants in lowercase format.\*/

#include<stdio.h>

int main(){int i,j,f;

printf("How many strings?:\n");

scanf("%d",&f);

char a[f][100];

printf("Please enter strings:\n ");

for(i=0;i<f;i++){

scanf("%s",a[i]);

}

for(i=0;i<f;i++){

for(j=0;a[i][j]!='\0';j++){if(a[i][j]=='a'||a[i][j]=='e'||a[i][j]=='i'||a[i][j]=='o'||a[i][j]=='u'){

a[i][j]=a[i][j]-32;

}

if(a[i][j]=='A'||a[i][j]=='E'||a[i][j]=='I'||a[i][j]=='O'||a[i][j]=='U'){

a[i][j]=a[i][j];

}

else if(a[i][j]>='A'&&a[i][j]<='Z'){a[i][j]=a[i][j]+32;}

}printf("\n%s",a[i]);}}

Answer 6

/\*6. Input two numbers and display the GCD. GCD calculation should be done in user defined function.\*/

#include<stdio.h>

#include<math.h>

int GCD\_function(int x, int y)

{

int i,gcd;

for(i=1;i<=x && i<=y;i++)

{

if(x%i==0 && y%i == 0)

{

gcd = i;

}

}

return gcd;

}

int main()

{

int value1,value2,sum;

printf("Enter two number :\n");

scanf("%d%d",&value1,&value2);

sum=GCD\_function(value1,value2);

printf("GCD is : %d",sum);

return 0;

}

Answer 7

/\*7. Input a number and display the biggest proper factor of that number. Use user defined function

to solve this.\*/

#include<stdio.h>

int big\_f(int x){int i,max=0;

for(i=2;i<x;i++){

if(x%i==0){

if(i>max){

max=i;

}

}

}printf("Largest proper factor %d",max);}

int main(){

int x;

printf("Enter a number :\n");

scanf("%d",&x);

big\_f(x);

return 0;}

Answer 8

/\*8. Input a number and display whether the number is a prime number or not. Use user defined

function to solve this.\*/

#include<stdio.h>

#include<math.h>

int pri(int m)

{

int i;

for(i=2;i<=m-1;i++)

{

if(m%i==0)

{

return 0;

}

return 1;

}

}

int main()

{

int n,s;

printf(" Enter The Value of N:\n");

scanf("%d",&n);

if(pri(n)==1)

{

printf("%d is Prime",n);

}

else

{

printf("\n%d is Not Prime",n);

}

return 0;

}