1. Write a C program which can input some of your cousin’s age along with your own age (You must input your age then all your cousin’s age) and display the following

a. Average age of all of you

b. How many of you are in teen age?

c. The difference between highest and lowest age

d. How many of your cousins are older than you?

e. Ratio between teenager and non-teenager

#include<stdio.h>

int main()

{

int x[100],i,n,a,b,c,d,e,f,g,h,k;

float avg, ratio;

printf("Enter the total number of ages:\n");

scanf("%d",&n);

printf("Enter the ages one by one:\n");

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

{

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

}

a=0;

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

{

a = a+x[i];

}

avg=a/(float)n;

printf("Average age of all of you: %.2f\n",avg);

b=0;

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

{

if(x[i]>=13 && x[i]<=19)

{

b++;

}

}

printf("Total number of teen age: %d\n",b);

c=0;

d=200;

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

{

if(x[i]>c)

{

c=x[i];

}

if(x[i]<d)

{

d=x[i];

}

}

g=c-d;

printf("The difference between highest and lowest age: %d\n",g);

e=0;

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

{

if(x[0]<x[i])

{

h++;

}

}

printf("Total number of my cousins are older than you: %d\n",h);

f=0;

k=0;

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

{

if(x[i]>=13 && x[i]<=19)

{

f++;

}

if((x[i]>=0 && x[i]<=12)|| x[i]>=20)

{

k++;

}

}

ratio= f/(float)k;

printf("The ratio between teenager and non-teenager: %.2f:1\n",ratio);

return 0;

}

2. Write a C program which can input a word and display the following:

a. Display in all uppercase format

b. How many vowels?

c. Number of lowercase letter

#include<stdio.h>

#include<string.h>

int main ()

{

char x[100],a;

int i,p,c,d;

float r;

printf("Enter the word:\n");

scanf("%s",x);

p=strlen(x);

a=0;

printf("Display in all uppercase format:\n");

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

{

if(x[i]>='A' && x[i]<='Z')

{

printf("%c\t",x[i]);

}

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

{

a=x[i]-32;

printf("%c\t",a);

}

}

printf("\n");

c=0;

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

{

if(x[i]=='a' || x[i]=='e' || x[i]=='i' || x[i]=='o' || x[i]=='u' ||

x[i]=='A' || x[i]=='E' || x[i]=='I' || x[i]=='O' || x[i]=='U')

{

c++;

}

}

printf("The number of total vowels: %d\n",c);

d=0;

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

{

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

{

d++;

}

}

printf("The number of total lowercase letter: %d\n",d);

return 0;

}