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18/ENG09/007

Aeronautical Engineering

Question 1

\* #include<stdio.h>

\*

\* void main()

\*

\* {

\*

\* int nodays,years, weeks,days;

\*

\* printf("Enter the total days\n");

\*

\* scanf("%d",&nodays);

\*

\* years=nodays/365;

\*

\* weeks=(nodays%365)/7;

\*

\* days=(nodays%365)%7;

\*

\* printf("%d = %d years,%d weeks,%d days\n",nodays,years,weeks,days);

\*

\* }

Question 2

#include<stdio.h>

#include<math.h>

int main()

{

int x1,x2,y1,y2;

int x,y; //temporary variables

float distance;

printf("Enter X and Y coordinates of first point");

scanf("%d %d",&x1,&y1);

printf("Enter X and Y coordinates of Second point");

scanf("%d %d",&x2,&y2);

x=x2-x1;

y=y2-y1;

distance=sqrt((x\*x)+(y\*y));

printf("Distance: %.2f",distance);

return 0;

}

Question 3

#include <stdio.h>

int main() {

float x, y, z, P, A;

printf("\nInput the first number: ");

scanf("%f", &x);

printf("\nInput the second number: ");

scanf("%f", &y);

printf("\nInput the third number: ");

scanf("%f", &z);

if(x < (y+z) && y < (x+z) && z < (y+x))

{

P = x+y+z;

printf("\nPerimeter = %.1f\n", P);

}

else

{

printf("Not possible to create a triangle..!");

}

}

/\*\*

\* C program to check whether a triangle is valid using nested if

\*/

#include <stdio.h>

int main()

{

int side1, side2, side3;

/\* Initially assume that the triangle is not valid \*/

int valid = 0;

/\* Input all three sides of a triangle \*/

printf("Enter three sides of triangle: \n");

scanf("%d%d%d", &side1, &side2, &side3);

if((side1 + side2) > side3)

{

if((side2 + side3) > side1)

{

if((side1 + side3) > side2)

{

/\*

\* If side1 + side2 > side3 and

\* side2 + side3 > side1 and

\* side1 + side3 > side2 then

\* the triangle is valid. Hence set

\* valid variable to 1.

\*/

valid = 1;

}

}

}

/\* Check valid flag variable \*/

if(valid == 1)

{

printf("Triangle is valid.");

}

else

{

printf("Triangle is not valid.");

}

return 0;

}

Question 4

#include <stdio.h>

int main()

{

int age;

int cnt\_baby=0,cnt\_school=0,cnt\_adult=0;

int count=0;

while(count<15)

{

printf("Enter age of person [%d]: ",count+1);

scanf("%d",&age);

if(age>=0 && age<=5)

cnt\_baby++;

else if(age>=6 && age<=17)

cnt\_school++;

else

cnt\_adult++;

//increase counter

count++;

}

printf("Baby age: %d\n",cnt\_baby);

printf("School age: %d\n",cnt\_school);

printf("Adult age: %d\n",cnt\_adult);

return 0;

}

Question 5

//included essential header files

#include <iostream>

#include <stdlib.h>

//namespace inclusion

using namespace std;

//main function

int main()

{

    //variable declarion of int type

    int userGuess, randomNumber;

    //calculated randomNumber

    randomNumber=(rand()%100)+1;

    //do while loop

    do{

        //diplay message to user

        cout<<"Enter your guess:";

        //input value from user

        cin>>userGuess;

        //if user guess is higher than the random number

        if(userGuess>randomNumber)

        //print result

  &nb...