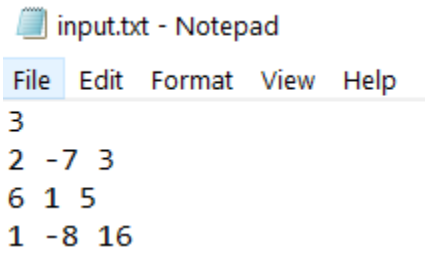
GIẢI PHƯƠNG TRÌNH BẬC 2

Bước 1 : Tạo tập tin input.txt như sau :



Bước 2 : Viết chương trình C như sau :

```c
#include <stdio.h>
#include <conio.h>
#include <math.h>
//-------------------------------------------------
int QuadraticEquation(int a, int b, int c, double* x1, double* x2)
{
    int flag = 1;
    double delta =  b*b - 4*a*c;
    if(delta>=0) {
        *x1 = (-b + sqrt(delta))/(2*a);
        *x2 = (-b - sqrt(delta))/(2*a);
    }
    else{
        flag = 0 ; //vo nghiem
    }
    return flag;
}

//-------------------------------------------------
void PrintToFile(FILE* f,int number,int a, int b, int c,
                 double x1,double x2,int flag){
    fprintf(f,"Equation  %d :\n",number);
    fprintf(f,"a=%d,b=%d,c=%d \n",a,b,c);
    if(flag > 0){
        fprintf(f,"x1 = %.2lf, x2 = %.2lf\n",x1,x2);
    }
    else{
        fprintf(f,"%s\n","Vo nghiem");
    }
    fprintf(f,"%s\n","----------------------------");
}
```

```
//-----------------------------------------
void Process(char *fileInput,char* fileOutput){
    int a,b,c;
    double x1,x2;
    int n , flag;
    FILE *fin = fopen(fileInput,"rt");
    FILE *fout = fopen(fileOutput,"wt");

    fscanf(fin,"%d",&n);
    for(int i=0;i<n;i++){
        fscanf(fin,"%d%d%d",&a,&b,&c);
        flag = QuadraticEquation(a,b,c,&x1,&x2) ;
        PrintToFile(fout,i+1,a,b,c,x1,x2,flag);
    }
    fclose(fin);
    fclose(fout);
}
```

```
//-----------------------------------
main()
{
    char fileIn[] = "input.txt";
    char fileOut[]  = "output.txt";
    Process(fileIn,fileOut);
    printf("Program is finished.");
}
```

Bước 3 : Chạy chương trình , mở file output.txt để xem kết quả.

output.txt - Notepad

File Edit Format View Help

```
Equation  1 :
a=2,b=-7,c=3
x1 = 3.00, x2 = 0.50
----------------------------
Equation  2 :
a=6,b=1,c=5
Vo nghiem
----------------------------
Equation  3 :
a=1,b=-8,c=16
x1 = 4.00, x2 = 4.00
----------------------------
```