WEEK 14

Sample Output 0

125

80

Explanation 0

The first box is really low, only ***5*** feet tall, so it can pass through the tunnel and its volume is ***5 x 5 x 5*** = ***125***.

The second box is sufficiently low, its volume is ***1 x 2 x 4***= = ***80***.

The third box is exactly ***41*** feet tall, so it cannot pass. The same can be said about the fourth box.

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
struct box{
    int l,w,h;
};
int main(){
    int n;
    scanf("%d",&n);
    struct box box[n];
    for(int i=0;i<n;i++){
        scanf("%d %d %d",&box[i].l,&box[i].w,&box[i].h);
    }
    for(int i=0;i<n;i++){
        if(box[i].h<41){
            int volume=box[i].l*box[i].h*box[i].w;
            printf("%d\n",volume);
        }
    }
    return 0;
}
```

	Input	Expected	Got	
✓	4	125	125	✓

Explanation 0

The square of the first triangle is ***84***. The square of the second triangle is ***30***. The square of the third triangle is ***6***. So the sorted order is the reverse one.

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
#include <math.h>
typedef struct{
    int a,b,c;
    double A;
}tri;
void swap(tri *a,tri *b){
    tri temp=*a;
    *a=*b;
    *b=temp;
}
void ascend(tri arr[],int n){
    for(int i=0;i<n;i++){
        for(int j=i+1;j<n;j++){
            if(arr[i].A>arr[j].A){
                swap(&arr[i],&arr[j]);
            }
        }
    }
}
int main(){
    int n;
    scanf("%d",&n);
    tri triangle[n];
    for(int i=0;i<n;i++){
        scanf("%d %d %d",&triangle[i].a,&triangle[i].b,&triangle[i].c);
        double s=(triangle[i].a+triangle[i].b+triangle[i].c)/2.0;
        triangle[i].A=sqrt(s*(s-triangle[i].a)*(s-triangle[i].b)*(s-triangle[i].c));
    }
    ascend(triangle,n);
    for(int i=0;i<n;i++){
        printf("%d %d %d\n",triangle[i].a,triangle[i].b,triangle[i].c);
    }
    return 0;
}
```

	Input	Expected	Got	
✓	3	3 4 5	3 4 5	✓