Week 14

nswer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main()
{
    int n;
    scanf("%d",&n);
    for(int i=0;i<n;i++)
    {
        int length,width,height;
        scanf("%d %d %d",&length,&width,&height);
        if(height <41)
        {
            int volume=length*width*height;
            printf("%d\n",volume);
        }
    }
}
```

	Input	Expected	Got	
✓	4 5 5 5 1 2 40 10 5 41 7 2 42	125 80	125 80	✓

Passed all tests! ✓

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
#include<math.h>
#include<stdlib.h>
typedef struct
{
    double area;
    int a,b,c;
}
Triangle;
double calculate_area(int a,int b,int c)
{
    double p=(a+b+c)/2.0;
    return sqrt(p*(p-a)*(p-b)*(p-c));
}
int compare(const void*x,const void*y)
{
    Triangle*t1=(Triangle*)x;
    Triangle*t2=(Triangle*)y;
    if(t1->area < t2->area) return -1;
    if(t1->area > t2->area) return 1;
    return 0;
}
int main()
{
    int n;
    scanf("%d",&n);
    Triangle triangles[n];
    for(int i=0;i<n;i++)
    {
        int a,b,c;
        scanf("%d %d %d",&a,&b,&c);
        triangles[i].a=a;
        triangles[i].b=b;
        triangles[i].c=c;
        triangles[i].area=calculate_area(a,b,c);

    }
    qsort(triangles,n,sizeof(Triangle),compare);
    for(int i=0;i<n;i++)
    {
        printf("%d %d %d\n",triangles[i].a,triangles[i].b,triangles[i].c);
    }
    return 0;
}
```

	Input	Expected	Got	
✓	3 7 24 25 5 12 13 3 4 5	3 4 5 5 12 13 7 24 25	3 4 5 5 12 13 7 24 25	✓