## 2060 Snooker

### 一、题目

#### 问题描述

background: Philip likes to play the QQ game of Snooker when he wants a relax, though he was just a little vegetable-bird. Maybe you hadn’t played that game yet, no matter, I’ll introduce the rule for you first. There are 21 object balls on board, including 15 red balls and 6 color balls: yellow, green, brown, blue, pink, black. The player should use a white main ball to make the object balls roll into the hole, the sum of the ball’s fixed value he made in the hole is the player’s score. The player should firstly made a red ball into the hole, after that he gains red-ball’s value(1 points), then he gets the chance to make a color ball, then alternately. The color ball should be took out until all the red-ball are in the hole. In other word, if there are only color balls left on board, the player should hit the object balls in this order: yellow(2 point), green(3 point), brown(4 point), blue(5 point), pink(6 point), black(7 point), after the ball being hit into the hole, they are not get out of the hole, after no ball left on board, the game ends, the player who has the higher score wins the game. PS: red object balls never get out of the hole. I just illustrate the rules that maybe used, if you want to contact more details, visit http://sports.tom.com/snooker/ after the contest.

For example, if there are 12 red balls on board(if there are still red ball left on board, it can be sure that all the color balls must be on board either). So suppose Philp can continuously hit the ball into the hole, he can get the maximum score is 12 \* 1 (12 red-ball in one shoot) + 7 \* 12(after hit a red ball, a black ball which was the most valuable ball should be the target) + 2 + 3 + 4 + 5 + 6 + 7(when no red ball left, make all the color ball in hole). Now, your task is to judge whether Philip should make the decision to give up when telling you the condition on board(How many object balls still left not in the hole and the other player’s score). If Philp still gets the chance to win, just print “Yes”, otherwise print “No”. (PS: if the max score he could get on board add his current score is equal to the opponent’s current score, still output “Yes”)

#### 输入数据

The first line contains a number N indicating the total conditions. Then followed by N lines, each line is made of three integers: Ball\_Left P\_Score O\_Score representing the ball number left on board, Philp’s current score, and the opponent’s current score. All the input value are in 32 bit integer value range.

#### 输出数据

You should calculate the max score left Philp can gain, and judge whether he has the possibility to win.

#### 输入样例

2 12 1 1 1 30 39

#### 输出样例

Yes No

#### 题目来源

HDU 2060 http://acm.hdu.edu.cn/showproblem.php?pid=2060

### 二、题解

#### 解题思路

英语阅读理解题。题目大意是说大于等于7个球的时候，一定有红球，每击落一颗红球得一分，加上击落红球后可以击落一颗彩球（为了得到最高的分数，此彩球一定是7分的黑球），所以桌上存在的每一颗红球都可以让Philp得到8分（这种情况下击落的彩球都是可以被拿回球桌的）。小于7个球的情况下为了得到最高的分数，默认分数高的球存在。因此得到的分数为7分、6分……。计算之后与对手的分数比较并输出结果即可。

#### 参考程序

#include <stdio.h>  
  
int main()  
{  
 int T;  
 scanf("%d",&T);  
 while(T--)  
 {  
 int bl,ps,os;  
 scanf("%d%d%d",&bl,&ps,&os);  
 if(bl>6)  
 {  
 ps+=((bl-6)\*8+27);//每一个红球最多可得到8分，最后的6个彩球总分为27。  
 }  
 else  
 {  
 for(int i=7;i>7-bl;i--)  
 {  
 ps+=i;  
 }  
 }  
 if(ps>=os)  
 {  
 printf("Yes\n");  
 }  
 else  
 {  
 printf("No\n");  
 }  
 }  
 return 0;  
}

#### 复杂度分析

无。

#### 编程技巧

英语基础应扎实。