

1 Introduction

The 2020 Olympics (held in 2021) will feature the debut of five new sports (<https://olympics.com/ioc/news/ioc-approves-five-new-sports-for-olympic-games-tokyo-2020>): surfing, skateboarding, karate, baseball/softball (not really new, but absent since 2008) and sport climbing. Sport climbing is particularly interesting as the International Olympic Committee (IOC) awarded only two sets of medals for the sport, one for men's and one for women's.

What makes this particularly interesting is that, sport climbing has several distinct disciplines: Speed climbing, bouldering, and lead climbing. Speed climbing takes place on a standardized course and competitors try to reach the top of the course as fast as possible. In bouldering, contestants have a fixed amount of time to complete as many courses as they can. Winners are determined based on who completes the most courses and ties are broken based on who had the fewest attempts. Ties are further broken by the competitor achieved the most "zone holds", which are holds approximately half way through each course. Finally, in lead climbing a competitor gets one point for each hold that they reach, so whoever reaches the highest point on the wall is the winner. In lead climbing, each competitor only gets one attempt and when they fall their attempt is over.

These three different events demand different sets of skills and, often, athletes specialize in a single event. However, since only one set of Olympic medals was awarded to climbing, rather than choosing only one of these disciplines to include in the Olympics, all three events were chosen to be included as a sort of climbing triathlon.

In order to declare a winner, a rather unique scoring system has been put in to place, with the full details to come, that rewards high finishes in each of the individual events and relatively ignores very poor finishes. This article examines this unique scoring system.

The rest of this article is organized as follows:

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2 Scoring Method

In the Olympic sport climbing, there are 20 competitors at the start (in both men's and women's). All 20 competitors compete in each of the three events, and their performances in each event are ranked. A competitors final score is then computed as the product of their ranks in the three events. Specifically,

$$Score_i = R_i^S \times R_i^B \times R_i^L$$

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where R_i^S , R_i^B , and R_i^L

Youth Olympics Qualification video:

Soccer points:

Cross country scoring:

<https://link.springer.com/article/10.1007/s11127-017-0494-0>
Decathlon scoring:
Rock Climbing scoring.

3 Results

4 Conclusion