Call ups can be downright frustrating to understand. Why is this racer in front of that racer? Why is my racer now in the second row when he was on the first row last week? These rules have evolved over time with the goal of getting a racer's starting position to be aligned with similarly skilled racers. That is accomplished with some basic arithmetic. So follow along:

Step 1: Calculating The Rank Value used to determine the Call Up order
The rank value for a racer is based off his or her race performance from previous races. New racers have a different process that will be covered farther down. It is important to understand that the rank value is not the actual call up placement that a racer will receive at the race.

If it is the first race of a year for the racer, last year's results will be used. Let's take the example below of three racer's results from last year:

	Johnny	Timmy	Sammy
Race 1	1	10	5
Race 2	2	1	5
Race 3	7	DNS	4
Race 4	6	DNS	5
Race 5	5	1	4
Rank Value (Average)	**4.2**	**4**	**4.6**

Johnny's math is:

1 (Race 1) + 2 (Race 2) + 7 (Race 3) + 6 (Race #4) + 5 (Race #5) = 21
21 / 5 (the number of races finished) = 4.2

Timmy's math is:

10 (Race 1) + 1 (Race 2) + 1 (Race #5) = 12
12 / 3 (the number of races finished) = 4

Sammy's math is:

5 (Race 1) + 5 (Race 2) + 4 (Race 3) + 5 (Race #4) + 4 (Race #5) = 23
23 / 5 (the number of races finished) = 4.6

Johnny raced all the races last season and won the overall points series and has a call up value of 4.2. Timmy missed several races – but those are not counted against him, only the races *he* finished. Timmy wasn't in the top 20 for season points because of the races he missed, but when he raced was fast and has a call up value of 4. Sammy was second in the overall point series and was very consistent placing 4th or 5th.

At this point, the call up order would be:

1st call up -Timmy (rank value 4)
2nd call up - Johnny (rank value 4.2)
3rd call up - Sammy (rank value 4.6)

You can see how the rank value is not the same as the call up placement (the actual order in which the racer is called up). The racer will keep this rank value from last season until they race this season. Then this year's average will be used with the same math formula.

After each race the rank value is re-calculated with race results, adjusting the rank value from race to race.

But what happens when it's an entire new field like 6th grade? Registered student-athletes are given a call-up value at random. Fields that have racers with race history, new racers will be placed behind racers with race history.

Step 2: Applying the Back Stop
A back stop was implemented to reduce the impact to a call ups if a racer has a single bad race. Things happen - tires go flat, chains get dropped, etc. This requires us to look at a couple more data points, but it is still basic arithmetic. Assume now that our three racers are half way through a new season and currently have the following finishes.

	Johnny	Timmy
Race 1	1	2
Race 2	2	1
Race 3	2	1
Average	**1.67**	**1.34**

For race #4 Timmy gets the first call up with a rank value of 1.34 and Johnny gets the second call up with a rank value of 1.67. During race #4, Timmy has a flat and places in 66th out of 77 racers racing that day.

Back stops are applied based on field size. Larger fields have a larger back stop.

Field size: 101+ Max drop:15
Field size of 51-100 riders: Max drop 10
Field size of 50 or fewer: Max drop 5

It is important to note that the field size is calculated once per season and applies to the total number of student-athletes registered in a category – not the number that raced on a given day. In Timmy's case, 99 student-athletes are registered in the field, so his back stop is 10. The backstop value assigned to each race category is listed on the call-up sheets at each race.

Did Timmy exceed the backstop? First calculate Timmy's new call up value for Race #5 with the results from Race #4.

2 (Race #1) + 1 (Race #2) + 1 (Race #3) + 66 (Race #4) = 70
70 / 4 (the number of races finished) = 17.5 rank value without backstop

Then determine Timmy's back stop by using his rank value (not the call up order) in Race #4 and add the back stop to it.

1.34 (Rank Value for Race #4) + 10 (Max drop) = 11.34 rank value with backstop

For Race #5 Timmy will have a calculated rank value of 17.5, but he will be given an adjusted rank value of 11.34 because he exceeded the back stop. If a back stop is applied, it does not get used again and does not change future rank value calculations.

Step #3: Apply Category Changes

When a racer changes categories, the past racing history is still used to determine a rank value. Many categories are somewhat age based and nearly all racers move up a category each year such as middle school or freshmen racers.

Moving into JV3 or Varsity presents a different scenario where many racers may stay in those categories for multiple years. These categories are faster and have more laps. If a rider moves into JV3 or Varsity (by petition or CPT) before the start of the season, last year's rank value will be used and then a back stop applied to for their first race of the current season. If a racer changes category mid-season, their rank value for this year, plus a back stop will be applied for their first race in the new category.

Step #4: Putting It All Together

After values are calculated, back stops are applied, and category changes are implemented, the adjusted rank value data is re-sorted for the next race. Bye week racers are filtered out and the call-up numbering is determined. Why is it important to filter out the bye week racers? Because many teams won't be racing. There are on average 35% of the racers in the field missing for a given race call up because they have a bye week and therefore are not listed in the call up sheet.

That is all there is to it – just some basic arithmetic and if/then statements… And 2,000 student athletes of which 1,000 moved categories for this season. And 100+ petitions. So yes. It's basic math – but it is a bit complicated.

So if you have a question of why a racer is in front of another racer, consider these questions:

- What are the rank values of the racers?
- Who is racing at this race, did the other team have a bye week?
- Did a racer change category?
- Was a back stop applied?