

Every swim counts in the Valley Cabana Swim League. The unique scoring system rewards points for both placement and improving individual times, so even swimmers who are not competing for a top finish are still contributing to the team's success.

The details:

Placement points

The top five swimmers and top two relays in each event score placement points according to the following table.

Place	Individual	Relay
1 st	6	12
2 nd	4	8
3 rd	3	-
4 th	2	-
5 th	1	-

A team's placement point percentage is the sum of all placement points earned by their individual and relay swimmers divided by the total placement points available to a single team at a dual meet, 1136, multiplied by 100 to express as a percentage, and rounded to the nearest tenth of a point.

$$placement \% = \frac{\Sigma placement\ points}{1136} * 100\%$$

If a team were to score 600 placement points in a meet, they would receive a 52.8 placement score.

$$\frac{600}{1136} * 100\% = 52.8$$

Improvement points

A swimmer earns one improvement point every time they improve their time in an individual event. The team's improvement percentage is calculated by adding up all of the improved time points, dividing the total by the total number of swims (or splashes) their team had in the meet, multiplying by 100 to express as a

percentage, rounding to the nearest tenth of a point and capping at 68%. Relays are not eligible for improved times and not included in the improved time calculations.

$$\text{improvement \%} = \min\left\{\frac{\sum \text{improvement points}}{\# \text{ splashes}} * 100\%, 68\%\right\}$$

If a team had 175 improved times out of 300 total splashes, they would receive a 58.3 improvement score.

$$\min\left\{\frac{175}{300} * 100\%, 68\%\right\} = 58.3\%$$

Team Score

The team score is just the sum of the placement percentage and improvement percentage.

$$\text{team score} = \text{placement \%} + \text{improvement \%}$$

In our example, the team would have a final team score of 111.1 points.

$$52.8 + 58.3 = 111.1$$

The team with the highest score at the end of the meet wins.

FAQ

Q: Sometimes when I'm not cheering for my friends or asking my parents for money to buy candy at the snack shack, I hear the announcer read off half way scores for the meet. Why don't these scores seem to change much between the half way point and the end of the meet?

A: The half way scores are calculated the same way as the final scores, but the total number of placement points and total number of splashes only reflect the first half of the meet. Since scores are calculated as a percentage of the available points and splashes this means that the half way scores and final scores will usually be very similar.

Q: Whenever I'm not swimming, I enjoy doing math. I like math so much that I calculated that it is possible to award 1296 total placement points in a meet. Why are the team placement points divided by 1136 instead of 1296?

A: Only the 'A' relay teams are allowed to score points, so one team can only win 12 out of the 20 points awarded during each relay event. This limits the maximum number of placement points that one team can score to 1136, so that's the value used for calculating the placement point percentage.

Q: Hey, it's me the math lover again. Now I understand how dual meet scores are calculated, but how is it different at champs when there are six teams competing? Adding improvement percentage to placement percentage would favor improvement since the placement points are spread across six teams but improvement percentage is not.

A: Champs scoring follows similar principals. It awards half the score for placement and half the score for improved times, but there are a few differences:

- Placement points are awarded for the top 10 places for individual events and top 6 places for relays
- Placement percentage is not used. The teams placement points are directly added to their final score.
- Improvement percentages are normalized across the six teams and then multiplied by the total number of placement points. This awards half the total points to placement and half the total points to improvement.