

400m Calculation

The new modified times for the 400m were calculated as follows.

The starting lines for lanes 2-9 were too far from the starting line for lane 1. Therefore, anyone in lanes 2-9 completed less than a 400m ride. The difference along the track from the incorrect to the correct starting lines are:

Lane 2 - 6.2832 m
Lane 3 - 12.5664 m
Lane 4 - 18.8496 m
Lane 5 - 25.1327 m
Lane 6 - 31.4159 m
Lane 7 - 37.6991 m
Lane 8 - 43.9823 m
Lane 9 - 50.2655 m

We found the rider's actual distance (400m - lane value) and divided by the rider's time in seconds to find the rider's speed. We then found the rider's adjusted 400m time, dividing 400m by the rider's average speed in meters per seconds.

After the calculations were verified as correct, each person's calculation was done in batch in excel, with formulas entered into excel being tested thoroughly against calculations done by hand.