

Emry Marquez  
*Gearing Up for the Race*

The purpose of this investigation is to see which gear ratio goes the fastest on curves and straight ways. This investigation would be beneficial because people that race can figure out which gear ratio would be best to use. This experiment was done with a 70 cubic centimeter dirt bike. The dirt bike was tested on a dirt trail. The experiment was tested on the same amount of distance on inclined, decline, and flat surfaces with each gear. Gear 4 produced the highest speed on flat surfaces, gear 2 on inclined surfaces, and gear 4 on declined surfaces. My hypothesis was accepted because gear 4 had the highest average speed on all surfaces. The hypothesis was if gear ratio is related to speed, then higher gears on a dirt bike would produce higher speeds than lower gears. Gear 4 had the highest speed on flat surfaces, gear 2 on inclined surfaces, and gear 4 on declined surfaces. So, my hypothesis was correct. Gear 4, the highest gear, had the highest speed overall.