**Quiz for 29 August 2024 – PubAfr 4010**

1. (8 points) What is your name?

2. (2 points) In last year’s AquaBike [Swim and Run], Rohan finished in second place by 4 minutes. Rohan dominated the bike, but swimming does not come naturally to him. Compared to the winner, Rohan was 10 minutes faster on the bike, but 14 minutes slower on the swim. This year, Rohan would like to win. To do so, he will need to make up at least 4 minutes in either the swim or bike. However, like everyone, Rohan is time constrained --- he can only dedicate a fixed amount of time to training in general, and he must decide where to spend that time across the two disciplines. If Rohan shifts 1 hour from cycling to swimming per week, he will improve his swim time by 5 minutes, but he will reduce his bike time by 2 minutes. If he shifts 1 hour to cycling, he will reduce his swim time by 3 minutes, but his cycling time will improve by 10 minutes. He can also choose to do the same time allocation as last year, but he will lose the race by 4 minutes again. **Please (1) describe what Rohan might decide using Type I and Type II thinking; and (2) ultimately what Rohan *should* do if he wants to win the race.**