

Bike and Run

Chloe and Lucille want to take part in their first “Bike and Run” event that covers a route of 27 km. This is a sports event in which one person runs while the other rides a bicycle. Both contestants use the same bicycle, taking turns as needed.

Each time one of the girls dismounts, she leaves the bicycle at the side of the road and continues on foot. When her teammate arrives on foot, she mounts the bike and continues cycling.

Chloe runs at a speed of 8 km/h and cycles at 20 km/h, while Lucille runs at 10 km/h and cycles at 16 km/h.

How can the girls plan so that they cross the finish line at the same time? How long does it take them to complete their route?

