**QUESTION :**

While in San Fransico some time back, I hired a car to drive over the Golden Gate Bridge. I Started in the afternoon when there was no traffic rush. So I could drive at a speed of 40 miles an hour. While returning, however, I got caught in the traffic rush and I could only manage to drive at a speed of 25 miles an hour. What was my average speed for the round trip?

**ANSWER :**

400S/13S

**STRATEGY :**

No, the answer is not 32^(1/2) miles an hour. Though this figure is the obvious answer. However, this represents the average of the 2 speeds and not the average speeds for the whole trip. If the time is equal to the distance divided by the average speed, then the time for the trip starting from San Fransisco equals S/40 and the time for the return trip is S/25 which gives us a total timke of S/40 + S/25, which equals 13S/200.

Therefore, the average speed for the whole trip when the average speed equals the distance divided by the time is @s divided by 13S/200 which equals 2S times 200/13S, which equals 400/13S or 30^(-10/13) miles an hour.