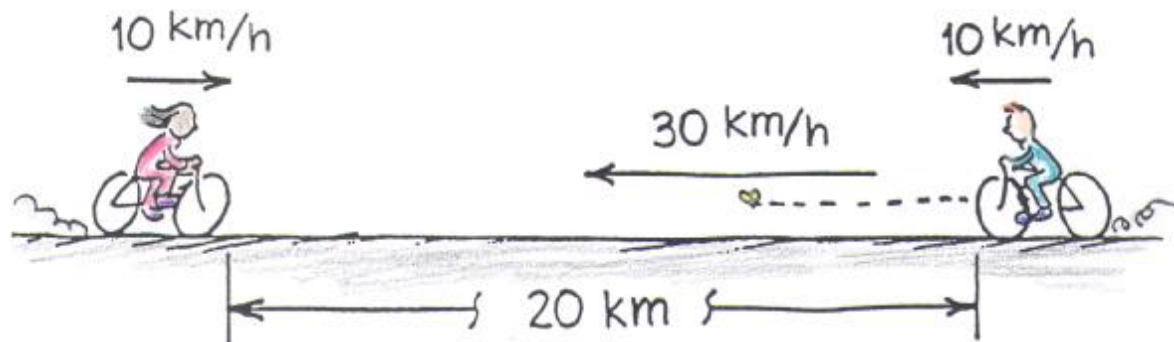


NEXT-TIME QUESTION

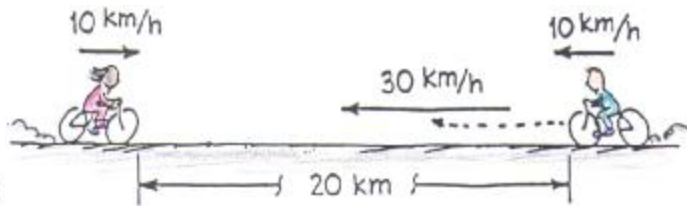
When the 10-km/h bikes are 20 km apart, a bee begins flying from one wheel to the other at a steady speed of 30 km/h. When it gets to the wheel, it abruptly turns around and flies back to touch the first wheel, then turns and keeps repeating the back-and-forth trips until the bikes meet, and **SQUISH!**



How many kilometers did the bee travel in its total back-and-forth trips?



NEXT-TIME QUESTION



When the 10-km/h bikes are 20 km apart, a bee begins flying from one wheel to the other at a steady speed of 30 km/h. When it gets to the wheel, it abruptly turns around and flies back to touch the first wheel, then turns around and keeps repeating the back-and-forth trips until the bikes meet, and **SQUISH!**

How many kilometers did the bee travel in its total back-and-forth trips?

Solution: 30 km

Let the equation for distance be a guide to thinking:

$$d = \bar{v} t$$

We know $\bar{v} = 30$ km/h, and we must find the time t .

We consider time for the bikes and see it takes 1 hour for them to meet. Since each travels 10 km at a speed of 10 km/h. Time for the bikes is the same time for the bee, so

$$d = \bar{v} t = 30 \text{ km/h} \times 1 \text{ h} = 30 \text{ km.}$$

The bee traveled a total of 30 km.