Two cars 200 kilometers apart are moving toward each other; each one is going at a speed of 50 km/h. A large wasp starting on the front of one of them flies back and forth between them at a rate of 75 km/h. It does this until the cars collide and crash the large wasp. What is the total distance the large wasp has flown?

Solution:

We have to find the time that two cars moved until the ones collided

$$t = \frac{l}{v_1 + v_2} = \frac{200}{50 + 50} = \frac{200}{100} = 2(h)$$

Thus the total distance the large wasp has flown is

$$S = t \cdot v_3 = 2 \cdot 75 = 150(km)$$

Answer: $150\ km$.