Answer on question #62528, Physics / Other

Question A jogger runs at a constant velocity of 4 m/s for a time of 10 minutes. He then slows to a trot of 2 m/s in the same direction for a time of 10 more minutes. He then jogs back toward his starting point, where his car is parked, at a rate of 4 m/s without stopping. How far has the man jogged, and how long does it take him to return to his car ?

Solution 10 min = 600 sec. Lets find total distance in one direction

$$S = S_1 + S_2 = 4 \cdot 600 + 2 \cdot 600 = 3600\,m$$

So he jogged on 3.6 km from his car. Time to get back is

$$t = S/v = 3600/4 = 900\,s = 15\,min$$