

Challenge 62: Commuting back and Forth

A commuter always takes the same train home from work, which gets in to her local station at five o'clock exactly. Her husband always meets the train and drives her home. So consistent is their regime that the husband knows exactly the time to set off to meet the train (he always travels at the same constant speed) in order to arrive at just the right moment, make the pick-up and return home immediately.

One day the wife happens to get an earlier train, arriving at the station at four, and she decides to start walking along the route driven by her husband. They meet somewhere along the way, she gets into the car and they drive home, arriving at their house 10 minutes earlier than usual.

The husband left at the same time as always, so how long was the wife walking before getting picked up?