

Homefun 11

Why Not Drive-Talkies?

MATH 150
10 points

Directions: Work in groups of 2 to 4 in class and then finish outside of class as necessary. Each group should submit **ONE** solution page for the group. (Be sure everyone's name is on it!)

A set of walkie-talkies has a maximum range of 3 miles. Colin takes off from home driving north at the same time Sarah begins driving east. Colin is driving at a rate of 40mph and Sarah at 35mph.

1. What is the rate of change of the distance between Colin and Sarah t hours after they begin driving?
2. After how long do the walkie-talkies reach their maximum range?