

MATH 3/4: ASSIGNMENT 9

MARCH 21, 2010

CLASSWORK

1. Athletes are running along the seashore. First athlete is running with a speed 6 km per hour. Second athlete is running with a speed 10 km per hour. Athletes start at the same time and have to run 5 km.
 - (a) How many minutes earlier will the second athlete finish than the first?
 - (b) When will the distance between the athletes be exactly 1 km?
2. It takes 5 hours for John to drive to his hometown, but if he drives 20 mph faster, than he will get to his hometown in 4 hours. How far is Johns hometown?
3. Andrew is driving 60 mph to Boston from his home. If Andrew drives 10 mph faster, he will get to Boston 1 hour faster. How far from Boston does Andrew live?

HOMEWORK

1. Dan is driving from New York first with the speed 50 mph for 3 hours and than with the speed 60 mph for 4 hours. How far will he be from New York at the end of his trip?
2. Ellen drives first 150 miles with the speed of 50 mph, and the remaining 220 miles with the speed 55 mph. How long does her trip take?
3. Andy walks with a speed of 4 km/h, and Ivan rides a bike with a speed of 20 km/h.
 - (a) The distance between Andy and Ivan is 72 km. They are moving towards each other. What will the distance be between them in an hour? In 2 hours? How long will it be until they meet?
 - (b) After Andy and Ivan met, they go in opposite directions. What will the distance be between them in an hour? in 2 hours? How long will it be until the distance between them is 60 km?
 - (c) The distance between Andy and Ivan is 72 km. They move in the same direction. Ivan is catching up with Andy. How long will it take until they meet?
 - (d) After Andy and Ivan met, they continue moving in the same direction. Ivan is getting away from Andy. What will the distance be between them in an hour? In 2 hours? How long will it take until the distance between them is 60 km?
4. It takes Rich 20 hours to get to Florida from his home. If he drives 9 mph faster, he will get to Florida in 17 hours. How far from Florida does he live?
5. Rob is driving 55 mph to his hometown from his university. If he drives 65 mph, he would get to his hometown 2 hour faster. How far is his hometown from the university?
- *6. Christina is driving with a certain speed from city A to city B. If she drives 15 mph faster, she would make it in 5 hours, and if she drives 15 mph slower, she would make it in 7 hours. What is her speed now? What is the distance from A to B? How long will it take her to get from A to B?