

Name: _____

Date: _____

Homework sheet: Alg2H
Systems of equations: Mixtures and more word problems

1. A chemist has a "solution A" that is 20% acid, and a "solution B" that is 60% acid. How many liters of each should be mixed to get 10 liters of a solution that is ___% acid?

a. To get 10 liters of a solution that is 20% acid?

Answer: _____ liters of solution A ; _____ liters of solution B

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b. To get 10 liters of a solution that is 60% acid?

Answer: _____ liters of solution A ; _____ liters of solution B

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c. To get 10 liters of a solution that is 40% acid?

Answer: _____ liters of solution A ; _____ liters of solution B

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d. To get 10 liters of a solution that is 50% acid?

Answer: _____ liters of solution A ; _____ liters of solution B

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e. To get 10 liters of a solution that is 45% acid?

Answer: _____ liters of solution A ; _____ liters of solution B

2. (From course book: Page 171, Question 5)

Soybean meal is 16% protein and corn meal is 9% protein. How many pounds of each should be mixed together to get a 350-Lb mixture that is 12% protein?

3. (From course book: Page 171, Question 21)

Carlos is 8 years older than his sister Maria. Four years ago Maria was two thirds as old as Carlos. How old are they now?

4. (From course book: Page 171, Question 16)

Two planes travel toward each other from cities that are 780 Miles apart, at speeds of 190mph and 200mph (small slow planes). They started at the same time. In how many hours will they meet?