

MATH 1314

Chapter 1.2: Applications with Linear and Rational Equations

Irene invested a total of \$8000. Part of the money was invested for 2 years in a stock fund which earned 6.5% simple interest. The remaining money was put in an 18-month certificate of deposit which earned 0.8% simple interest. If the total interest from both investments was \$804, determine the amount invested in each account.

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Chapter 1.2: -2-

Household bleach contains 6% sodium hypochlorite. How much household bleach should be combined with 70 L of a weaker 1% hypochlorite solution to form a solution that is 2.5% sodium hypochlorite?

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Chapter 1.2: -3-

Charlotte participated in a 41-mile biathlon that included running and bicycling. She spent 1 hour 45 minutes on the bike and 45 minutes running. If her average speed on the bicycle was 12 mph faster than her average speed running, find her average speed running and her average speed riding.

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Chapter 1.2: -4-

At a mail-order company, Derrick can process 100 orders in 4 hours. Valerie can process 100 orders in 3 hours.

How long would it take them to process 100 orders if they work together?

How long would it take them to process 1400 orders if they work together?

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Chapter 1.2: -5-

In a jury pool, there are 8 more men than women. If the ratio of men to women is 8 to 7, determine the number of men and women in the pool.