

## Mixture Problems Day 3

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11. The Knox Valley investment club invested \$14,000 at 7.0% annual simple interest. How much additional money should they invest at an annual simple interest rate of 5.1%, so that the total annual interest earned from the two accounts is 5.5% of the total investment?

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12. You have 40 coins in nickels and dimes. How many dimes do you have if you have a total of \$2.85?

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13. You buy a car for \$17,500. If it loses all value in 15 years, what is the equation that represents its' straight line depreciation?

How much will the car be worth in 6 years?

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14. You are purchasing a 3 year-old used car. If the current price is \$14,500 and has historically depreciated at a rate of 10% per year, how much did the car cost when it was new? (assume exponential depreciation).

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15. You have a 5 year old car that is worth \$12,400. It originally sold for \$16,600 when it was new. What is the average rate of depreciation for this vehicle? (assume exponential depreciation).