

## Practice - Mixtures

- 1) A metal alloy weighing 8 kg and containing 14% gold is melted and mixed with 3 kg of a different alloy which contains 36% gold. What percent of the resulting alloy is gold?
- 2) 12 gal. of a 85% acid solution was mixed with 4 gal. of a 65% acid solution. What is the concentration of the mixture?
- 3) How many kg of mixed nuts that contain 40% peanuts must Totsakan add to 11 kg of peanuts to make a mixture with 73% peanuts?
- 4) Abhasra wants to make a 55% sugar solution. She has already poured 9 qt. of a 65% sugar solution into a beaker. How many qt. of a 25% sugar solution must she add to this to create the desired mixture?
- 5) Norachai created a metal containing 62% nickel by combining two other metals. One of these other metals weighed 2 kg and contained 86% nickel. If the other weighed 4 kg then what percent of it was nickel?
- 6) Mike created a metal containing 58% gold by combining two other metals. One of these other metals weighed 10 kg and contained 64% gold. If the other weighed 3 kg then what percent of it was gold?
- 7) Asanji asked you to make 20 L of fruit punch that contains 60% fruit juice by mixing together some Sweet Tropical Fruit Punch and some apple juice. How much of each ingredient do you need if the Sweet Tropical Fruit Punch contains 20% juice?
- 8) Bill asked you to make 15 gal. of fruit punch that contains 44% fruit juice by mixing together some amount of Brand A fruit punch and some amount of Brand B fruit punch. Brand A contains 40% fruit juice and Brand B contains 50% fruit juice. How much of each do you need?
- 9) To build the garden of your dreams you need  $8 \text{ m}^3$  of soil containing 60% silt. You have two types of soil you can combine to achieve this: soil with 20% silt and pure silt. How much of each soil should you use?
- 10) Shayna's Premium Coffee Blend which costs \$13/kg is made by combining arabica coffee beans which cost \$14/kg with robusta coffee beans which cost \$11/kg. Find the number of kg of arabica coffee beans and robusta coffee beans required to make 6 kg of Shayna's Premium Coffee Blend.