

Mixture Word Problems

Date _____ Period _____

- 1) 7 kg of soybean oil which costs \$4/kg were combined with 14 kg of canola oil which costs \$1/kg. Find the cost per kg of the mixture.
- 2) A sugar solution was made by mixing 8 qt. of a 2% sugar solution and 6 qt. of a 51% sugar solution. Find the concentration of the new mixture.
- 3) A sugar solution was made by mixing 7 ml of a 50% sugar solution and 3 ml of a 80% sugar solution. Find the concentration of the new mixture.
- 4) For her birthday party Kathryn mixed together 3 gal. of Brand A fruit punch and 6 gal. of Brand B. Brand A contains 17% fruit juice and Brand B contains 26% fruit juice. What percent of the mixture is fruit juice?
- 5) How many gal. of a 65% saline solution must be mixed with 8 gal. of pure water to make a 25% solution?
- 6) 1 oz of walnuts were mixed with 4 oz of peanuts which cost \$4/oz to make mixed nuts which cost \$5/oz. What is the price per oz of walnuts?
- 7) Heather wants to make a 36% acid solution. She has already poured 3 fl. oz. of a 72% acid solution into a beaker. How many fl. oz. of a 9% acid solution must she add to this to create the desired mixture?
- 8) Kali mixed together 9 gal. of Brand A fruit drink and 6 gal. of Brand B fruit drink which contains 5% fruit juice. Find the percent of fruit juice in Brand A if the mixture contained 11% fruit juice.
- 9) To build the garden of your dreams you need 10 ft³ of soil containing 17% clay. You have two types of soil you can combine to achieve this: soil with 35% clay and soil with 10% clay. How much of each soil should you use?
- 10) Bronze which costs \$9.10/kg is made by combining copper which costs \$8.90/kg with tin which costs \$9.50/kg. Find the number of kg of copper and tin required to make 15.3 kg of bronze.
- 11) Kristin wants to make 6 gal. of a 34% alcohol solution by mixing together a 24% alcohol solution and a 64% alcohol solution. How much of each solution must she use?
- 12) Bronze which costs \$7.05/kg is made by combining copper which costs \$6.20/kg with tin which costs \$8.70/kg. Find the number of kg of copper and tin required to make 5 kg of bronze.

Mixture Word Problems

- 1) 7 kg of soybean oil which costs \$4/kg were combined with 14 kg of canola oil which costs \$1/kg. Find the cost per kg of the mixture.
\$2/kg
- 2) A sugar solution was made by mixing 8 qt. of a 2% sugar solution and 6 qt. of a 51% sugar solution. Find the concentration of the new mixture.
23%
- 3) A sugar solution was made by mixing 7 ml of a 50% sugar solution and 3 ml of a 80% sugar solution. Find the concentration of the new mixture.
59%
- 4) For her birthday party Kathryn mixed together 3 gal. of Brand A fruit punch and 6 gal. of Brand B. Brand A contains 17% fruit juice and Brand B contains 26% fruit juice. What percent of the mixture is fruit juice?
23%
- 5) How many gal. of a 65% saline solution must be mixed with 8 gal. of pure water to make a 25% solution?
5 gal.
- 6) 1 oz of walnuts were mixed with 4 oz of peanuts which cost \$4/oz to make mixed nuts which cost \$5/oz. What is the price per oz of walnuts?
\$9/oz
- 7) Heather wants to make a 36% acid solution. She has already poured 3 fl. oz. of a 72% acid solution into a beaker. How many fl. oz. of a 9% acid solution must she add to this to create the desired mixture?
4 fl. oz.
- 8) Kali mixed together 9 gal. of Brand A fruit drink and 6 gal. of Brand B fruit drink which contains 5% fruit juice. Find the percent of fruit juice in Brand A if the mixture contained 11% fruit juice.
15%
- 9) To build the garden of your dreams you need 10 ft³ of soil containing 17% clay. You have two types of soil you can combine to achieve this: soil with 35% clay and soil with 10% clay. How much of each soil should you use?
2.8 ft³ with 35% clay, 7.2 ft³ with 10% clay
- 10) Bronze which costs \$9.10/kg is made by combining copper which costs \$8.90/kg with tin which costs \$9.50/kg. Find the number of kg of copper and tin required to make 15.3 kg of bronze.
10.2 kg of copper, 5.1 kg of tin
- 11) Kristin wants to make 6 gal. of a 34% alcohol solution by mixing together a 24% alcohol solution and a 64% alcohol solution. How much of each solution must she use?
4.5 gal. of 24% solution, 1.5 gal. of 64% solution
- 12) Bronze which costs \$7.05/kg is made by combining copper which costs \$6.20/kg with tin which costs \$8.70/kg. Find the number of kg of copper and tin required to make 5 kg of bronze.
3.3 kg of copper, 1.7 kg of tin