

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) 2 ft<sup>3</sup> of silt was mixed into 6 ft<sup>3</sup> of soil containing 40% silt. What is the silt content of the mixture?
- 2) An alcohol solution was made by mixing 2 qt. of a 10% alcohol solution and 10 qt. of a 70% alcohol solution. Find the concentration of the new mixture.
- 3) 2 L of a 80% alcohol solution was mixed with 6 L of pure water. What is the concentration of the mixture?
- 4) 10 lbs. of mixed nuts containing 40% peanuts were mixed with 15 lbs. of another kind of mixed nuts that contain 60% peanuts. What percent of the new mixture is peanuts?
- 5) A metal alloy weighing 1 kg and containing 30% copper is melted and mixed with 4 kg of a different alloy which contains 85% copper. What percent of the resulting alloy is copper?
- 6) 9 m<sup>3</sup> of silt was mixed into 1 m<sup>3</sup> of soil containing 40% silt. What is the silt content of the mixture?
- 7) For his birthday party Mike mixed together 7 gal. of Brand A fruit punch and 3 gal. of Brand B. Brand A contains 20% fruit juice and Brand B contains 30% fruit juice. What percent of the mixture is fruit juice?
- 8) A saline solution was made by mixing 4 fl. oz. of a 52% saline solution and 1 fl. oz. of a 42% saline solution. What is the concentration of the mixture?
- 9) 10 yd<sup>3</sup> of silt was mixed into 1 yd<sup>3</sup> of soil containing 12% silt. What is the silt content of the mixture?
- 10) A metal alloy weighing 3 lb. and containing 80% iron is melted and mixed with 9 lb. of pure iron. What percent of the resulting alloy is iron?
- 11) 18 oz. of mixed nuts containing 34% peanuts were mixed with 4 oz. of peanuts. What percent of the new mixture is peanuts?
- 12) 4 gal. of a 60% acid solution was mixed with 1 gal. of pure water. Find the concentration of the new mixture.
- 13) 1 gal. of a 72% acid solution was mixed with 3 gal. of a 20% acid solution. What is the concentration of the mixture?
- 14) A metal alloy weighing 11 kg and containing 20% platinum is melted and mixed with 5 kg of pure platinum. What percent of the resulting alloy is platinum?
- 15) An acid solution was made by mixing 6 gal. of a 90% acid solution and 4 gal. of a 30% acid solution. What is the concentration of the mixture?
- 16) 4 lbs. of mixed nuts containing 40% peanuts were mixed with 16 lbs. of another kind of mixed nuts that contain 45% peanuts. Peanuts are what percent of the new mixture?

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) 2 ft<sup>3</sup> of silt was mixed into 6 ft<sup>3</sup> of soil containing 40% silt. What is the silt content of the mixture?  
55%
- 2) An alcohol solution was made by mixing 2 qt. of a 10% alcohol solution and 10 qt. of a 70% alcohol solution. Find the concentration of the new mixture.  
60%
- 3) 2 L of a 80% alcohol solution was mixed with 6 L of pure water. What is the concentration of the mixture?  
20%
- 4) 10 lbs. of mixed nuts containing 40% peanuts were mixed with 15 lbs. of another kind of mixed nuts that contain 60% peanuts. What percent of the new mixture is peanuts?  
52%
- 5) A metal alloy weighing 1 kg and containing 30% copper is melted and mixed with 4 kg of a different alloy which contains 85% copper. What percent of the resulting alloy is copper?  
74%
- 6) 9 m<sup>3</sup> of silt was mixed into 1 m<sup>3</sup> of soil containing 40% silt. What is the silt content of the mixture?  
94%
- 7) For his birthday party Mike mixed together 7 gal. of Brand A fruit punch and 3 gal. of Brand B. Brand A contains 20% fruit juice and Brand B contains 30% fruit juice. What percent of the mixture is fruit juice?  
23%
- 8) A saline solution was made by mixing 4 fl. oz. of a 52% saline solution and 1 fl. oz. of a 42% saline solution. What is the concentration of the mixture?  
50%
- 9) 10 yd<sup>3</sup> of silt was mixed into 1 yd<sup>3</sup> of soil containing 12% silt. What is the silt content of the mixture?  
92%
- 10) A metal alloy weighing 3 lb. and containing 80% iron is melted and mixed with 9 lb. of pure iron. What percent of the resulting alloy is iron?  
95%
- 11) 18 oz. of mixed nuts containing 34% peanuts were mixed with 4 oz. of peanuts. What percent of the new mixture is peanuts?  
46%
- 12) 4 gal. of a 60% acid solution was mixed with 1 gal. of pure water. Find the concentration of the new mixture.  
48%
- 13) 1 gal. of a 72% acid solution was mixed with 3 gal. of a 20% acid solution. What is the concentration of the mixture?  
33%
- 14) A metal alloy weighing 11 kg and containing 20% platinum is melted and mixed with 5 kg of pure platinum. What percent of the resulting alloy is platinum?  
45%
- 15) An acid solution was made by mixing 6 gal. of a 90% acid solution and 4 gal. of a 30% acid solution. What is the concentration of the mixture?  
66%
- 16) 4 lbs. of mixed nuts containing 40% peanuts were mixed with 16 lbs. of another kind of mixed nuts that contain 45% peanuts. Peanuts are what percent of the new mixture?  
44%

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) 18 oz of Adam's Premium Coffee Blend was made by combining 6 oz of arabica coffee beans which cost \$9/oz with 12 oz of robusta coffee beans which cost \$12/oz. Find the cost per oz of the mixture.
- 2) An alcohol solution was made by mixing 9 L of a 50% alcohol solution and 6 L of a 10% alcohol solution. What is the concentration of the mixture?
- 3) For her birthday party Shreya mixed together 4 gal. of Brand A fruit punch and 10 gal. of Brand B. Brand A contains 55% fruit juice and Brand B contains 20% fruit juice. What percent of the mixture is fruit juice?
- 4) A metal alloy weighing 6 lb. and containing 40% platinum is melted and mixed with 9 lb. of a different alloy which contains 80% platinum. What percent of the resulting alloy is platinum?
- 5) 15 oz. of mixed nuts containing 50% peanuts were mixed with 6 oz. of another kind of mixed nuts that contain 15% peanuts. What percent of the new mixture is peanuts?
- 6)  $8 \text{ m}^3$  of soil containing 38% silt was mixed into  $6 \text{ m}^3$  of soil containing 52% silt. What is the silt content of the mixture?
- 7)  $4 \text{ ft}^3$  of sand was mixed into  $1 \text{ ft}^3$  of soil containing 50% sand. What is the sand content of the mixture?
- 8)  $1 \text{ yd}^3$  of silt was mixed into  $9 \text{ yd}^3$  of soil containing 50% silt. What is the silt content of the mixture?
- 9) 3 kg of generic sugar was made by combining 1 kg of brand X sugar which costs \$4/kg with 2 kg of brand Y sugar which costs \$1/kg. Find the cost per kg of the mixture.
- 10) 10 L of a 70% saline solution was mixed with 5 L of a 85% saline solution. What is the concentration of the mixture?
- 11) 6 kg of copper which costs \$5/kg were combined with 3 kg of tin which costs \$8/kg. Find the cost per kg of the mixture.
- 12)  $6 \text{ yd}^3$  of soil containing 10% clay was mixed into  $3 \text{ yd}^3$  of soil containing 40% clay. What is the clay content of the mixture?
- 13) 16 oz. of mixed nuts containing 54% peanuts were mixed with 8 oz. of another kind of mixed nuts that contain 24% peanuts. Peanuts are what percent of the new mixture?
- 14) For her birthday party Jasmine mixed together 3 L of Brand A fruit punch and 2 L of apple juice. If Brand A contains 15% fruit juice then what percent of the final mixture is fruit juice?
- 15) A metal alloy weighing 6 kg and containing 70% copper is melted and mixed with 9 kg of a different alloy which contains 90% copper. What percent of the resulting alloy is copper?
- 16) A metal alloy weighing 1 oz. and containing 70% gold is melted and mixed with 9 oz. of a different alloy which contains 60% gold. What percent of the resulting alloy is gold?

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) 18 oz of Adam's Premium Coffee Blend was made by combining 6 oz of arabica coffee beans which cost \$9/oz with 12 oz of robusta coffee beans which cost \$12/oz. Find the cost per oz of the mixture.  
\$11/oz
- 2) An alcohol solution was made by mixing 9 L of a 50% alcohol solution and 6 L of a 10% alcohol solution. What is the concentration of the mixture?  
34%
- 3) For her birthday party Shreya mixed together 4 gal. of Brand A fruit punch and 10 gal. of Brand B. Brand A contains 55% fruit juice and Brand B contains 20% fruit juice. What percent of the mixture is fruit juice?  
30%
- 4) A metal alloy weighing 6 lb. and containing 40% platinum is melted and mixed with 9 lb. of a different alloy which contains 80% platinum. What percent of the resulting alloy is platinum?  
64%
- 5) 15 oz. of mixed nuts containing 50% peanuts were mixed with 6 oz. of another kind of mixed nuts that contain 15% peanuts. What percent of the new mixture is peanuts?  
40%
- 6) 8 m<sup>3</sup> of soil containing 38% silt was mixed into 6 m<sup>3</sup> of soil containing 52% silt. What is the silt content of the mixture?  
44%
- 7) 4 ft<sup>3</sup> of sand was mixed into 1 ft<sup>3</sup> of soil containing 50% sand. What is the sand content of the mixture?  
90%
- 8) 1 yd<sup>3</sup> of silt was mixed into 9 yd<sup>3</sup> of soil containing 50% silt. What is the silt content of the mixture?  
55%
- 9) 3 kg of generic sugar was made by combining 1 kg of brand X sugar which costs \$4/kg with 2 kg of brand Y sugar which costs \$1/kg. Find the cost per kg of the mixture.  
\$2/kg
- 10) 10 L of a 70% saline solution was mixed with 5 L of a 85% saline solution. What is the concentration of the mixture?  
75%
- 11) 6 kg of copper which costs \$5/kg were combined with 3 kg of tin which costs \$8/kg. Find the cost per kg of the mixture.  
\$6/kg
- 12) 6 yd<sup>3</sup> of soil containing 10% clay was mixed into 3 yd<sup>3</sup> of soil containing 40% clay. What is the clay content of the mixture?  
20%
- 13) 16 oz. of mixed nuts containing 54% peanuts were mixed with 8 oz. of another kind of mixed nuts that contain 24% peanuts. Peanuts are what percent of the new mixture?  
44%
- 14) For her birthday party Jasmine mixed together 3 L of Brand A fruit punch and 2 L of apple juice. If Brand A contains 15% fruit juice then what percent of the final mixture is fruit juice?  
49%
- 15) A metal alloy weighing 6 kg and containing 70% copper is melted and mixed with 9 kg of a different alloy which contains 90% copper. What percent of the resulting alloy is copper?  
82%
- 16) A metal alloy weighing 1 oz. and containing 70% gold is melted and mixed with 9 oz. of a different alloy which contains 60% gold. What percent of the resulting alloy is gold?  
61%

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) A metal alloy weighing 12 oz. and containing 5% copper is melted and mixed with 2 oz. of a different alloy which contains 40% copper. What percent of the resulting alloy is copper?
- 2) 2 L of a 20% saline solution was mixed with 8 L of a 65% saline solution. What is the concentration of the mixture?
- 3) A saline solution was made by mixing 1 qt. of a 40% saline solution and 4 qt. of a 70% saline solution. Find the concentration of the new mixture.
- 4) A metal alloy weighing 4 oz. and containing 76% iron is melted and mixed with 8 oz. of a different alloy which contains 16% iron. What percent of the resulting alloy is iron?
- 5) 20 oz. of mixed nuts containing 74% peanuts were mixed with 10 oz. of another kind of mixed nuts that contain 38% peanuts. Peanuts are what percent of the new mixture?
- 6) A metal alloy weighing 8 oz. and containing 40% silver is melted and mixed with 2 oz. of pure silver. What percent of the resulting alloy is silver?
- 7) 7 oz of mixed nuts was made by combining 3 oz of walnuts which cost \$3/oz with 4 oz of peanuts which cost \$10/oz. Find the cost per oz of the mixture.
- 8) 5 lbs. of mixed nuts containing 30% peanuts were mixed with 4 lbs. of another kind of mixed nuts that contain 75% peanuts. Peanuts are what percent of the new mixture?
- 9) 12 lb of arabica coffee beans which cost \$8/lb were combined with 8 lb of robusta coffee beans which cost \$13/lb. Find the cost per lb of the mixture.
- 10) 6 qt. of a 90% acid solution was mixed with 4 qt. of a 40% acid solution. Find the concentration of the new mixture.
- 11) 10 lb of soybean oil which costs \$1/lb were combined with 5 lb of canola oil which costs \$4/lb. Find the cost per lb of the mixture.
- 12) 7 oz of mixed nuts was made by combining 6 oz of walnuts which cost \$12/oz with 1 oz of peanuts which cost \$5/oz. Find the cost per oz of the mixture.
- 13) 5 L of a 70% acid solution was mixed with 2 L of pure water. What is the concentration of the mixture?
- 14) 15 oz of bleached flour which costs \$8/oz were combined with 5 oz of unbleached flour which costs \$4/oz. Find the cost per oz of the mixture.
- 15) An acid solution was made by mixing 4 fl. oz. of a 75% acid solution and 10 fl. oz. of a 40% acid solution. What is the concentration of the mixture?
- 16) 4 ml of a 90% alcohol solution was mixed with 1 ml of a 70% alcohol solution. Find the concentration of the new mixture.

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) A metal alloy weighing 12 oz. and containing 5% copper is melted and mixed with 2 oz. of a different alloy which contains 40% copper. What percent of the resulting alloy is copper?  
**10%**
- 2) 2 L of a 20% saline solution was mixed with 8 L of a 65% saline solution. What is the concentration of the mixture?  
**56%**
- 3) A saline solution was made by mixing 1 qt. of a 40% saline solution and 4 qt. of a 70% saline solution. Find the concentration of the new mixture.  
**64%**
- 4) A metal alloy weighing 4 oz. and containing 76% iron is melted and mixed with 8 oz. of a different alloy which contains 16% iron. What percent of the resulting alloy is iron?  
**36%**
- 5) 20 oz. of mixed nuts containing 74% peanuts were mixed with 10 oz. of another kind of mixed nuts that contain 38% peanuts. Peanuts are what percent of the new mixture?  
**62%**
- 6) A metal alloy weighing 8 oz. and containing 40% silver is melted and mixed with 2 oz. of pure silver. What percent of the resulting alloy is silver?  
**52%**
- 7) 7 oz of mixed nuts was made by combining 3 oz of walnuts which cost \$3/oz with 4 oz of peanuts which cost \$10/oz. Find the cost per oz of the mixture.  
**\$7/oz**
- 8) 5 lbs. of mixed nuts containing 30% peanuts were mixed with 4 lbs. of another kind of mixed nuts that contain 75% peanuts. Peanuts are what percent of the new mixture?  
**50%**
- 9) 12 lb of arabica coffee beans which cost \$8/lb were combined with 8 lb of robusta coffee beans which cost \$13/lb. Find the cost per lb of the mixture.  
**\$10/lb**
- 10) 6 qt. of a 90% acid solution was mixed with 4 qt. of a 40% acid solution. Find the concentration of the new mixture.  
**70%**
- 11) 10 lb of soybean oil which costs \$1/lb were combined with 5 lb of canola oil which costs \$4/lb. Find the cost per lb of the mixture.  
**\$2/lb**
- 12) 7 oz of mixed nuts was made by combining 6 oz of walnuts which cost \$12/oz with 1 oz of peanuts which cost \$5/oz. Find the cost per oz of the mixture.  
**\$11/oz**
- 13) 5 L of a 70% acid solution was mixed with 2 L of pure water. What is the concentration of the mixture?  
**50%**
- 14) 15 oz of bleached flour which costs \$8/oz were combined with 5 oz of unbleached flour which costs \$4/oz. Find the cost per oz of the mixture.  
**\$7/oz**
- 15) An acid solution was made by mixing 4 fl. oz. of a 75% acid solution and 10 fl. oz. of a 40% acid solution. What is the concentration of the mixture?  
**50%**
- 16) 4 ml of a 90% alcohol solution was mixed with 1 ml of a 70% alcohol solution. Find the concentration of the new mixture.  
**86%**

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) 1 yd<sup>3</sup> of soil containing 34% sand was mixed into 4 yd<sup>3</sup> of soil containing 44% sand. What is the sand content of the mixture?
- 2) 9 m<sup>3</sup> of soil containing 30% silt was mixed into 6 m<sup>3</sup> of soil containing 15% silt. What is the silt content of the mixture?
- 3) 6 kg of bleached flour which costs \$5/kg were combined with 12 kg of unbleached flour which costs \$8/kg. Find the cost per kg of the mixture.
- 4) 6 kg of mixed nuts containing 50% peanuts were mixed with 19 kg of peanuts. What percent of the new mixture is peanuts?
- 5) 10 oz of cane molasses which costs \$4/oz were combined with 5 oz of beet molasses which costs \$1/oz. Find the cost per oz of the mixture.
- 6) An alcohol solution was made by mixing 9 L of a 80% alcohol solution and 3 L of a 20% alcohol solution. Find the concentration of the new mixture.
- 7) For her birthday party Heather mixed together 8 gal. of Brand A fruit punch and 10 gal. of grape juice. If Brand A contains 10% fruit juice then what percent of the final mixture is fruit juice?
- 8) 5 oz of peanuts which cost \$1/oz were combined with 10 oz of spices which cost \$4/oz. Find the cost per oz of the mixture.
- 9) Jose mixed 15 kg of peanuts with 17 kg of mixed nuts containing 36% peanuts. Peanuts are what percent of the new mixture?
- 10) A sugar solution was made by mixing 1 qt. of a 46% sugar solution and 3 qt. of a 54% sugar solution. What is the concentration of the mixture?
- 11) 9 yd<sup>3</sup> of soil containing 35% sand was mixed into 3 yd<sup>3</sup> of soil containing 15% sand. What is the sand content of the mixture?
- 12) 6 yd<sup>3</sup> of sand was mixed into 10 yd<sup>3</sup> of soil containing 44% sand. What is the sand content of the mixture?
- 13) 12 L of a 22% sugar solution was mixed with 2 L of a 1% sugar solution. What is the concentration of the mixture?
- 14) 4 m<sup>3</sup> of soil containing 45% clay was mixed into 2 m<sup>3</sup> of soil containing 15% clay. What is the clay content of the mixture?
- 15) For his birthday party Jack mixed together 4 gal. of Brand A fruit punch and 2 gal. of apple juice. If Brand A contains 10% fruit juice then what percent of the final mixture is fruit juice?
- 16) 5 fl. oz. of a 64% sugar solution was mixed with 3 fl. oz. of pure water. What is the concentration of the mixture?

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) 1 yd<sup>3</sup> of soil containing 34% sand was mixed into 4 yd<sup>3</sup> of soil containing 44% sand. What is the sand content of the mixture?  
42%
- 2) 9 m<sup>3</sup> of soil containing 30% silt was mixed into 6 m<sup>3</sup> of soil containing 15% silt. What is the silt content of the mixture?  
24%
- 3) 6 kg of bleached flour which costs \$5/kg were combined with 12 kg of unbleached flour which costs \$8/kg. Find the cost per kg of the mixture.  
\$7/kg
- 4) 6 kg of mixed nuts containing 50% peanuts were mixed with 19 kg of peanuts. What percent of the new mixture is peanuts?  
88%
- 5) 10 oz of cane molasses which costs \$4/oz were combined with 5 oz of beet molasses which costs \$1/oz. Find the cost per oz of the mixture.  
\$3/oz
- 6) An alcohol solution was made by mixing 9 L of a 80% alcohol solution and 3 L of a 20% alcohol solution. Find the concentration of the new mixture.  
65%
- 7) For her birthday party Heather mixed together 8 gal. of Brand A fruit punch and 10 gal. of grape juice. If Brand A contains 10% fruit juice then what percent of the final mixture is fruit juice?  
60%
- 8) 5 oz of peanuts which cost \$1/oz were combined with 10 oz of spices which cost \$4/oz. Find the cost per oz of the mixture.  
\$3/oz
- 9) Jose mixed 15 kg of peanuts with 17 kg of mixed nuts containing 36% peanuts. Peanuts are what percent of the new mixture?  
66%
- 10) A sugar solution was made by mixing 1 qt. of a 46% sugar solution and 3 qt. of a 54% sugar solution. What is the concentration of the mixture?  
52%
- 11) 9 yd<sup>3</sup> of soil containing 35% sand was mixed into 3 yd<sup>3</sup> of soil containing 15% sand. What is the sand content of the mixture?  
30%
- 12) 6 yd<sup>3</sup> of sand was mixed into 10 yd<sup>3</sup> of soil containing 44% sand. What is the sand content of the mixture?  
65%
- 13) 12 L of a 22% sugar solution was mixed with 2 L of a 1% sugar solution. What is the concentration of the mixture?  
19%
- 14) 4 m<sup>3</sup> of soil containing 45% clay was mixed into 2 m<sup>3</sup> of soil containing 15% clay. What is the clay content of the mixture?  
35%
- 15) For his birthday party Jack mixed together 4 gal. of Brand A fruit punch and 2 gal. of apple juice. If Brand A contains 10% fruit juice then what percent of the final mixture is fruit juice?  
40%
- 16) 5 fl. oz. of a 64% sugar solution was mixed with 3 fl. oz. of pure water. What is the concentration of the mixture?  
40%

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) 15 kg of Eduardo's Red Hot Peanuts was made by combining 5 kg of peanuts which cost \$1/kg with 10 kg of spices which cost \$4/kg. Find the cost per kg of the mixture.
- 2) For his birthday party Jack mixed together 2 L of Brand A fruit punch and 3 L of Brand B. Brand A contains 15% fruit juice and Brand B contains 30% fruit juice. What percent of the mixture is fruit juice?
- 3) 9 fl. oz. of a 10% acid solution was mixed with 1 fl. oz. of pure water. Find the concentration of the new mixture.
- 4) 3 L of a 78% alcohol solution was mixed with 10 L of pure water. Find the concentration of the new mixture.
- 5) 15 oz. of mixed nuts containing 68% peanuts were mixed with 5 oz. of another kind of mixed nuts that contain 24% peanuts. Peanuts are what percent of the new mixture?
- 6) For her birthday party Jasmine mixed together 4 L of Brand A fruit punch and 2 L of Brand B. Brand A contains 20% fruit juice and Brand B contains 44% fruit juice. What percent of the mixture is fruit juice?
- 7) 6 yd<sup>3</sup> of clay was mixed into 9 yd<sup>3</sup> of soil containing 20% clay. What is the clay content of the mixture?
- 8) 4 oz. of mixed nuts containing 65% peanuts were mixed with 16 oz. of another kind of mixed nuts that contain 70% peanuts. What percent of the new mixture is peanuts?
- 9) 6 kg of mixed nuts was made by combining 4 kg of walnuts which cost \$9/kg with 2 kg of peanuts which cost \$3/kg. Find the cost per kg of the mixture.
- 10) A metal alloy weighing 2 oz. and containing 80% gold is melted and mixed with 3 oz. of pure gold. What percent of the resulting alloy is gold?
- 11) A metal alloy weighing 4 kg and containing 50% platinum is melted and mixed with 11 kg of a different alloy which contains 5% platinum. What percent of the resulting alloy is platinum?
- 12) A metal alloy weighing 2 lb. and containing 85% copper is melted and mixed with 8 lb. of a different alloy which contains 50% copper. What percent of the resulting alloy is copper?
- 13) 8 yd<sup>3</sup> of clay was mixed into 6 yd<sup>3</sup> of soil containing 58% clay. What is the clay content of the mixture?
- 14) A metal alloy weighing 6 lb. and containing 10% copper is melted and mixed with 2 lb. of a different alloy which contains 70% copper. What percent of the resulting alloy is copper?
- 15) 3 m<sup>3</sup> of soil containing 55% silt was mixed into 2 m<sup>3</sup> of soil containing 45% silt. What is the silt content of the mixture?
- 16) 2 gal. of a 75% saline solution was mixed with 4 gal. of pure water. What is the concentration of the mixture?

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) 15 kg of Eduardo's Red Hot Peanuts was made by combining 5 kg of peanuts which cost \$1/kg with 10 kg of spices which cost \$4/kg. Find the cost per kg of the mixture.  
\$3/kg
- 2) For his birthday party Jack mixed together 2 L of Brand A fruit punch and 3 L of Brand B. Brand A contains 15% fruit juice and Brand B contains 30% fruit juice. What percent of the mixture is fruit juice?  
24%
- 3) 9 fl. oz. of a 10% acid solution was mixed with 1 fl. oz. of pure water. Find the concentration of the new mixture.  
9%
- 4) 3 L of a 78% alcohol solution was mixed with 10 L of pure water. Find the concentration of the new mixture.  
18%
- 5) 15 oz. of mixed nuts containing 68% peanuts were mixed with 5 oz. of another kind of mixed nuts that contain 24% peanuts. Peanuts are what percent of the new mixture?  
57%
- 6) For her birthday party Jasmine mixed together 4 L of Brand A fruit punch and 2 L of Brand B. Brand A contains 20% fruit juice and Brand B contains 44% fruit juice. What percent of the mixture is fruit juice?  
28%
- 7) 6 yd<sup>3</sup> of clay was mixed into 9 yd<sup>3</sup> of soil containing 20% clay. What is the clay content of the mixture?  
52%
- 8) 4 oz. of mixed nuts containing 65% peanuts were mixed with 16 oz. of another kind of mixed nuts that contain 70% peanuts. What percent of the new mixture is peanuts?  
69%
- 9) 6 kg of mixed nuts was made by combining 4 kg of walnuts which cost \$9/kg with 2 kg of peanuts which cost \$3/kg. Find the cost per kg of the mixture.  
\$7/kg
- 10) A metal alloy weighing 2 oz. and containing 80% gold is melted and mixed with 3 oz. of pure gold. What percent of the resulting alloy is gold?  
92%
- 11) A metal alloy weighing 4 kg and containing 50% platinum is melted and mixed with 11 kg of a different alloy which contains 5% platinum. What percent of the resulting alloy is platinum?  
17%
- 12) A metal alloy weighing 2 lb. and containing 85% copper is melted and mixed with 8 lb. of a different alloy which contains 50% copper. What percent of the resulting alloy is copper?  
57%
- 13) 8 yd<sup>3</sup> of clay was mixed into 6 yd<sup>3</sup> of soil containing 58% clay. What is the clay content of the mixture?  
82%
- 14) A metal alloy weighing 6 lb. and containing 10% copper is melted and mixed with 2 lb. of a different alloy which contains 70% copper. What percent of the resulting alloy is copper?  
25%
- 15) 3 m<sup>3</sup> of soil containing 55% silt was mixed into 2 m<sup>3</sup> of soil containing 45% silt. What is the silt content of the mixture?  
51%
- 16) 2 gal. of a 75% saline solution was mixed with 4 gal. of pure water. What is the concentration of the mixture?  
25%

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1)  $6 \text{ m}^3$  of clay was mixed into  $1 \text{ m}^3$  of soil containing 30% clay. What is the clay content of the mixture?
- 2) A metal alloy weighing 10 kg and containing 61% gold is melted and mixed with 5 kg of pure gold. What percent of the resulting alloy is gold?
- 3)  $9 \text{ ft}^3$  of soil containing 10% silt was mixed into  $3 \text{ ft}^3$  of soil containing 50% silt. What is the silt content of the mixture?
- 4) 15 oz of baking flour was made by combining 12 oz of bleached flour which costs \$2/oz with 3 oz of unbleached flour which costs \$7/oz. Find the cost per oz of the mixture.
- 5) A metal alloy weighing 6 lb. and containing 90% copper is melted and mixed with 4 lb. of a different alloy which contains 5% copper. What percent of the resulting alloy is copper?
- 6) 10 oz. of mixed nuts containing 70% peanuts were mixed with 15 oz. of peanuts. What percent of the new mixture is peanuts?
- 7) A metal alloy weighing 2 mg and containing 20% iron is melted and mixed with 8 mg of a different alloy which contains 60% iron. What percent of the resulting alloy is iron?
- 8)  $10 \text{ yd}^3$  of soil containing 44% sand was mixed into  $6 \text{ yd}^3$  of soil containing 12% sand. What is the sand content of the mixture?
- 9) 12 lb of mixed nuts was made by combining 8 lb of walnuts which cost \$2/lb with 4 lb of peanuts which cost \$5/lb. Find the cost per lb of the mixture.
- 10) 12 oz of Indonesian cinnamon which costs \$14/oz were combined with 6 oz of Thai cinnamon which costs \$11/oz. Find the cost per oz of the mixture.
- 11) 15 kg of mixed nuts containing 30% peanuts were mixed with 10 kg of another kind of mixed nuts that contain 60% peanuts. Peanuts are what percent of the new mixture?
- 12) 18 kg of mixed nuts containing 54% peanuts were mixed with 11 kg of another kind of mixed nuts that contain 25% peanuts. What percent of the new mixture is peanuts?
- 13) 2 fl. oz. of a 25% saline solution was mixed with 4 fl. oz. of a 10% saline solution. Find the concentration of the new mixture.
- 14) A metal alloy weighing 3 kg and containing 72% platinum is melted and mixed with 9 kg of pure platinum. What percent of the resulting alloy is platinum?
- 15) 6 lbs. of mixed nuts containing 18% peanuts were mixed with 9 lbs. of another kind of mixed nuts that contain 28% peanuts. What percent of the new mixture is peanuts?
- 16) 14 kg of mixed nuts containing 35% peanuts were mixed with 16 kg of another kind of mixed nuts that contain 20% peanuts. What percent of the new mixture is peanuts?

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) 6 m<sup>3</sup> of clay was mixed into 1 m<sup>3</sup> of soil containing 30% clay. What is the clay content of the mixture? **90%**
- 2) A metal alloy weighing 10 kg and containing 61% gold is melted and mixed with 5 kg of pure gold. What percent of the resulting alloy is gold? **74%**
- 3) 9 ft<sup>3</sup> of soil containing 10% silt was mixed into 3 ft<sup>3</sup> of soil containing 50% silt. What is the silt content of the mixture? **20%**
- 4) 15 oz of baking flour was made by combining 12 oz of bleached flour which costs \$2/oz with 3 oz of unbleached flour which costs \$7/oz. Find the cost per oz of the mixture. **\$3/oz**
- 5) A metal alloy weighing 6 lb. and containing 90% copper is melted and mixed with 4 lb. of a different alloy which contains 5% copper. What percent of the resulting alloy is copper? **56%**
- 6) 10 oz. of mixed nuts containing 70% peanuts were mixed with 15 oz. of peanuts. What percent of the new mixture is peanuts? **88%**
- 7) A metal alloy weighing 2 mg and containing 20% iron is melted and mixed with 8 mg of a different alloy which contains 60% iron. What percent of the resulting alloy is iron? **52%**
- 8) 10 yd<sup>3</sup> of soil containing 44% sand was mixed into 6 yd<sup>3</sup> of soil containing 12% sand. What is the sand content of the mixture? **32%**
- 9) 12 lb of mixed nuts was made by combining 8 lb of walnuts which cost \$2/lb with 4 lb of peanuts which cost \$5/lb. Find the cost per lb of the mixture. **\$3/lb**
- 10) 12 oz of Indonesian cinnamon which costs \$14/oz were combined with 6 oz of Thai cinnamon which costs \$11/oz. Find the cost per oz of the mixture. **\$13/oz**
- 11) 15 kg of mixed nuts containing 30% peanuts were mixed with 10 kg of another kind of mixed nuts that contain 60% peanuts. Peanuts are what percent of the new mixture? **42%**
- 12) 18 kg of mixed nuts containing 54% peanuts were mixed with 11 kg of another kind of mixed nuts that contain 25% peanuts. What percent of the new mixture is peanuts? **43%**
- 13) 2 fl. oz. of a 25% saline solution was mixed with 4 fl. oz. of a 10% saline solution. Find the concentration of the new mixture. **15%**
- 14) A metal alloy weighing 3 kg and containing 72% platinum is melted and mixed with 9 kg of pure platinum. What percent of the resulting alloy is platinum? **93%**
- 15) 6 lbs. of mixed nuts containing 18% peanuts were mixed with 9 lbs. of another kind of mixed nuts that contain 28% peanuts. What percent of the new mixture is peanuts? **24%**
- 16) 14 kg of mixed nuts containing 35% peanuts were mixed with 16 kg of another kind of mixed nuts that contain 20% peanuts. What percent of the new mixture is peanuts? **27%**

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) A metal alloy weighing 10 mg and containing 76% iron is melted and mixed with 6 mg of pure iron. What percent of the resulting alloy is iron?
- 2) A sugar solution was made by mixing 5 gal. of a 75% sugar solution and 10 gal. of a 30% sugar solution. Find the concentration of the new mixture.
- 3) 11 qt. of a 80% sugar solution was mixed with 9 qt. of pure water. Find the concentration of the new mixture.
- 4) A metal alloy weighing 3 oz. and containing 55% copper is melted and mixed with 2 oz. of a different alloy which contains 70% copper. What percent of the resulting alloy is copper?
- 5) 4 oz of copper which costs \$3/oz were combined with 2 oz of tin which costs \$9/oz. Find the cost per oz of the mixture.
- 6) 8 m<sup>3</sup> of soil containing 10% silt was mixed into 2 m<sup>3</sup> of soil containing 35% silt. What is the silt content of the mixture?
- 7) A metal alloy weighing 9 mg and containing 65% iron is melted and mixed with 6 mg of pure iron. What percent of the resulting alloy is iron?
- 8) A sugar solution was made by mixing 3 fl. oz. of a 50% sugar solution and 6 fl. oz. of a 35% sugar solution. Find the concentration of the new mixture.
- 9) 10 oz. of mixed nuts containing 75% peanuts were mixed with 15 oz. of another kind of mixed nuts that contain 40% peanuts. Peanuts are what percent of the new mixture?
- 10) 6 gal. of a 55% alcohol solution was mixed with 9 gal. of a 65% alcohol solution. What is the concentration of the mixture?
- 11) For her birthday party Kim mixed together 3 L of Brand A fruit punch and 7 L of Brand B. Brand A contains 45% fruit juice and Brand B contains 25% fruit juice. What percent of the mixture is fruit juice?
- 12) 2 ft<sup>3</sup> of soil containing 50% sand was mixed into 4 ft<sup>3</sup> of soil containing 35% sand. What is the sand content of the mixture?
- 13) A metal alloy weighing 6 oz. and containing 20% copper is melted and mixed with 9 oz. of a different alloy which contains 40% copper. What percent of the resulting alloy is copper?
- 14) 6 qt. of a 45% sugar solution was mixed with 9 qt. of pure water. What is the concentration of the mixture?
- 15) A metal alloy weighing 11 oz. and containing 70% silver is melted and mixed with 4 oz. of pure silver. What percent of the resulting alloy is silver?
- 16) 9 lbs. of mixed nuts containing 38% peanuts were mixed with 15 lbs. of another kind of mixed nuts that contain 70% peanuts. What percent of the new mixture is peanuts?

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) A metal alloy weighing 10 mg and containing 76% iron is melted and mixed with 6 mg of pure iron. What percent of the resulting alloy is iron?  
85%
- 2) A sugar solution was made by mixing 5 gal. of a 75% sugar solution and 10 gal. of a 30% sugar solution. Find the concentration of the new mixture.  
45%
- 3) 11 qt. of a 80% sugar solution was mixed with 9 qt. of pure water. Find the concentration of the new mixture.  
44%
- 4) A metal alloy weighing 3 oz. and containing 55% copper is melted and mixed with 2 oz. of a different alloy which contains 70% copper. What percent of the resulting alloy is copper?  
61%
- 5) 4 oz of copper which costs \$3/oz were combined with 2 oz of tin which costs \$9/oz. Find the cost per oz of the mixture.  
\$5/oz
- 6) 8 m<sup>3</sup> of soil containing 10% silt was mixed into 2 m<sup>3</sup> of soil containing 35% silt. What is the silt content of the mixture?  
15%
- 7) A metal alloy weighing 9 mg and containing 65% iron is melted and mixed with 6 mg of pure iron. What percent of the resulting alloy is iron?  
79%
- 8) A sugar solution was made by mixing 3 fl. oz. of a 50% sugar solution and 6 fl. oz. of a 35% sugar solution. Find the concentration of the new mixture.  
40%
- 9) 10 oz. of mixed nuts containing 75% peanuts were mixed with 15 oz. of another kind of mixed nuts that contain 40% peanuts. Peanuts are what percent of the new mixture?  
54%
- 10) 6 gal. of a 55% alcohol solution was mixed with 9 gal. of a 65% alcohol solution. What is the concentration of the mixture?  
61%
- 11) For her birthday party Kim mixed together 3 L of Brand A fruit punch and 7 L of Brand B. Brand A contains 45% fruit juice and Brand B contains 25% fruit juice. What percent of the mixture is fruit juice?  
31%
- 12) 2 ft<sup>3</sup> of soil containing 50% sand was mixed into 4 ft<sup>3</sup> of soil containing 35% sand. What is the sand content of the mixture?  
40%
- 13) A metal alloy weighing 6 oz. and containing 20% copper is melted and mixed with 9 oz. of a different alloy which contains 40% copper. What percent of the resulting alloy is copper?  
32%
- 14) 6 qt. of a 45% sugar solution was mixed with 9 qt. of pure water. What is the concentration of the mixture?  
18%
- 15) A metal alloy weighing 11 oz. and containing 70% silver is melted and mixed with 4 oz. of pure silver. What percent of the resulting alloy is silver?  
78%
- 16) 9 lbs. of mixed nuts containing 38% peanuts were mixed with 15 lbs. of another kind of mixed nuts that contain 70% peanuts. What percent of the new mixture is peanuts?  
58%

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) 6 L of a 50% acid solution was mixed with 4 L of a 10% acid solution. Find the concentration of the new mixture.
- 2) 6 m<sup>3</sup> of soil containing 35% clay was mixed into 3 m<sup>3</sup> of soil containing 20% clay. What is the clay content of the mixture?
- 3) An alcohol solution was made by mixing 8 gal. of a 60% alcohol solution and 2 gal. of a 70% alcohol solution. Find the concentration of the new mixture.
- 4) 3 yd<sup>3</sup> of soil containing 20% sand was mixed into 2 yd<sup>3</sup> of soil containing 25% sand. What is the sand content of the mixture?
- 5) A metal alloy weighing 3 mg and containing 40% platinum is melted and mixed with 7 mg of a different alloy which contains 20% platinum. What percent of the resulting alloy is platinum?
- 6) For his birthday party Jacob mixed together 2 L of Brand A fruit punch and 3 L of Brand B. Brand A contains 45% fruit juice and Brand B contains 40% fruit juice. What percent of the mixture is fruit juice?
- 7) An acid solution was made by mixing 9 qt. of a 70% acid solution and 3 qt. of a 30% acid solution. Find the concentration of the new mixture.
- 8) 6 ft<sup>3</sup> of soil containing 28% clay was mixed into 4 ft<sup>3</sup> of soil containing 58% clay. What is the clay content of the mixture?
- 9) 12 fl. oz. of a 40% sugar solution was mixed with 3 fl. oz. of a 80% sugar solution. What is the concentration of the mixture?
- 10) 8 lbs. of mixed nuts containing 30% peanuts were mixed with 4 lbs. of another kind of mixed nuts that contain 18% peanuts. What percent of the new mixture is peanuts?
- 11) 4 lbs. of mixed nuts containing 30% peanuts were mixed with 16 lbs. of another kind of mixed nuts that contain 60% peanuts. What percent of the new mixture is peanuts?
- 12) 3 m<sup>3</sup> of soil containing 40% sand was mixed into 1 m<sup>3</sup> of soil containing 20% sand. What is the sand content of the mixture?
- 13) 9 gal. of a 40% saline solution was mixed with 3 gal. of pure water. Find the concentration of the new mixture.
- 14) 12 oz of copper which costs \$2/oz were combined with 6 oz of tin which costs \$5/oz. Find the cost per oz of the mixture.
- 15) Micaela mixed 10 oz. of peanuts with 20 oz. of mixed nuts containing 70% peanuts. Peanuts are what percent of the new mixture?
- 16) 6 fl. oz. of a 76% alcohol solution was mixed with 3 fl. oz. of a 43% alcohol solution. Find the concentration of the new mixture.

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) 6 L of a 50% acid solution was mixed with 4 L of a 10% acid solution. Find the concentration of the new mixture.  
34%
- 3) An alcohol solution was made by mixing 8 gal. of a 60% alcohol solution and 2 gal. of a 70% alcohol solution. Find the concentration of the new mixture.  
62%
- 5) A metal alloy weighing 3 mg and containing 40% platinum is melted and mixed with 7 mg of a different alloy which contains 20% platinum. What percent of the resulting alloy is platinum?  
26%
- 7) An acid solution was made by mixing 9 qt. of a 70% acid solution and 3 qt. of a 30% acid solution. Find the concentration of the new mixture.  
60%
- 9) 12 fl. oz. of a 40% sugar solution was mixed with 3 fl. oz. of a 80% sugar solution. What is the concentration of the mixture?  
48%
- 11) 4 lbs. of mixed nuts containing 30% peanuts were mixed with 16 lbs. of another kind of mixed nuts that contain 60% peanuts. What percent of the new mixture is peanuts?  
54%
- 12) 3 m<sup>3</sup> of soil containing 40% sand was mixed into 1 m<sup>3</sup> of soil containing 20% sand. What is the sand content of the mixture?  
35%
- 13) 9 gal. of a 40% saline solution was mixed with 3 gal. of pure water. Find the concentration of the new mixture.  
30%
- 14) 12 oz of copper which costs \$2/oz were combined with 6 oz of tin which costs \$5/oz. Find the cost per oz of the mixture.  
\$3/oz
- 15) Micaela mixed 10 oz. of peanuts with 20 oz. of mixed nuts containing 70% peanuts. Peanuts are what percent of the new mixture?  
80%
- 2) 6 m<sup>3</sup> of soil containing 35% clay was mixed into 3 m<sup>3</sup> of soil containing 20% clay. What is the clay content of the mixture?  
30%
- 4) 3 yd<sup>3</sup> of soil containing 20% sand was mixed into 2 yd<sup>3</sup> of soil containing 25% sand. What is the sand content of the mixture?  
22%
- 6) For his birthday party Jacob mixed together 2 L of Brand A fruit punch and 3 L of Brand B. Brand A contains 45% fruit juice and Brand B contains 40% fruit juice. What percent of the mixture is fruit juice?  
42%
- 8) 6 ft<sup>3</sup> of soil containing 28% clay was mixed into 4 ft<sup>3</sup> of soil containing 58% clay. What is the clay content of the mixture?  
40%
- 10) 8 lbs. of mixed nuts containing 30% peanuts were mixed with 4 lbs. of another kind of mixed nuts that contain 18% peanuts. What percent of the new mixture is peanuts?  
26%
- 16) 6 fl. oz. of a 76% alcohol solution was mixed with 3 fl. oz. of a 43% alcohol solution. Find the concentration of the new mixture.  
65%

## Assignment

- 1) 8 lb of brand X sugar which costs \$5/lb were combined with 16 lb of brand Y sugar which costs \$2/lb. Find the cost per lb of the mixture.
- 2) 1 L of a 4% alcohol solution was mixed with 3 L of pure water. Find the concentration of the new mixture.
- 3) A sugar solution was made by mixing 3 qt. of a 80% sugar solution and 2 qt. of a 20% sugar solution. What is the concentration of the mixture?
- 4) 12 fl. oz. of a 40% saline solution was mixed with 8 fl. oz. of pure water. What is the concentration of the mixture?
- 5) 1 oz of brand X coffee which costs \$7/oz was combined with 11 oz of brand Y coffee which costs \$19/oz. Find the cost per oz of the mixture.
- 6) 4 yd<sup>3</sup> of soil containing 55% clay was mixed into 6 yd<sup>3</sup> of soil containing 15% clay. What is the clay content of the mixture?
- 7) 9 yd<sup>3</sup> of soil containing 40% clay was mixed into 3 yd<sup>3</sup> of soil containing 20% clay. What is the clay content of the mixture?
- 8) 3 ml of a 70% alcohol solution was mixed with 9 ml of a 10% alcohol solution. What is the concentration of the mixture?
- 9) A metal alloy weighing 4 mg and containing 88% gold is melted and mixed with 12 mg of pure gold. What percent of the resulting alloy is gold?
- 10) 9 kg of bleached flour which costs \$3/kg were combined with 3 kg of unbleached flour which costs \$7/kg. Find the cost per kg of the mixture.
- 11) 4 fl. oz. of a 55% alcohol solution was mixed with 6 fl. oz. of pure water. What is the concentration of the mixture?
- 12) 12 L of a 40% alcohol solution was mixed with 8 L of a 70% alcohol solution. Find the concentration of the new mixture.
- 13) For her birthday party Mary mixed together 3 gal. of Brand A fruit punch and 10 gal. of Brand B. Brand A contains 50% fruit juice and Brand B contains 37% fruit juice. What percent of the mixture is fruit juice?
- 14) 8 qt. of a 75% acid solution was mixed with 1 qt. of a 48% acid solution. Find the concentration of the new mixture.
- 15) 2 qt. of a 38% sugar solution was mixed with 6 qt. of a 86% sugar solution. What is the concentration of the mixture?
- 16) 16 oz. of mixed nuts containing 30% peanuts were mixed with 14 oz. of another kind of mixed nuts that contain 60% peanuts. What percent of the new mixture is peanuts?

## Assignment

- 1) 8 lb of brand X sugar which costs \$5/lb were combined with 16 lb of brand Y sugar which costs \$2/lb. Find the cost per lb of the mixture.  
\$3/lb
- 2) 1 L of a 4% alcohol solution was mixed with 3 L of pure water. Find the concentration of the new mixture.  
1%
- 3) A sugar solution was made by mixing 3 qt. of a 80% sugar solution and 2 qt. of a 20% sugar solution. What is the concentration of the mixture?  
56%
- 4) 12 fl. oz. of a 40% saline solution was mixed with 8 fl. oz. of pure water. What is the concentration of the mixture?  
24%
- 5) 1 oz of brand X coffee which costs \$7/oz was combined with 11 oz of brand Y coffee which costs \$19/oz. Find the cost per oz of the mixture.  
\$18/oz
- 6) 4 yd<sup>3</sup> of soil containing 55% clay was mixed into 6 yd<sup>3</sup> of soil containing 15% clay. What is the clay content of the mixture?  
31%
- 7) 9 yd<sup>3</sup> of soil containing 40% clay was mixed into 3 yd<sup>3</sup> of soil containing 20% clay. What is the clay content of the mixture?  
35%
- 8) 3 ml of a 70% alcohol solution was mixed with 9 ml of a 10% alcohol solution. What is the concentration of the mixture?  
25%
- 9) A metal alloy weighing 4 mg and containing 88% gold is melted and mixed with 12 mg of pure gold. What percent of the resulting alloy is gold?  
97%
- 10) 9 kg of bleached flour which costs \$3/kg were combined with 3 kg of unbleached flour which costs \$7/kg. Find the cost per kg of the mixture.  
\$4/kg
- 11) 4 fl. oz. of a 55% alcohol solution was mixed with 6 fl. oz. of pure water. What is the concentration of the mixture?  
22%
- 12) 12 L of a 40% alcohol solution was mixed with 8 L of a 70% alcohol solution. Find the concentration of the new mixture.  
52%
- 13) For her birthday party Mary mixed together 3 gal. of Brand A fruit punch and 10 gal. of Brand B. Brand A contains 50% fruit juice and Brand B contains 37% fruit juice. What percent of the mixture is fruit juice?  
40%
- 14) 8 qt. of a 75% acid solution was mixed with 1 qt. of a 48% acid solution. Find the concentration of the new mixture.  
72%
- 15) 2 qt. of a 38% sugar solution was mixed with 6 qt. of a 86% sugar solution. What is the concentration of the mixture?  
74%
- 16) 16 oz. of mixed nuts containing 30% peanuts were mixed with 14 oz. of another kind of mixed nuts that contain 60% peanuts. What percent of the new mixture is peanuts?  
44%

## Assignment

- 1) 2 ml of a 15% alcohol solution was mixed with 8 ml of pure water. Find the concentration of the new mixture.
- 2) A saline solution was made by mixing 2 ml of a 58% saline solution and 1 ml of a 64% saline solution. Find the concentration of the new mixture.
- 3) 6 fl. oz. of a 20% acid solution was mixed with 2 fl. oz. of pure water. What is the concentration of the mixture?
- 4) 11 lbs. of mixed nuts containing 50% peanuts were mixed with 9 lbs. of another kind of mixed nuts that contain 30% peanuts. Peanuts are what percent of the new mixture?
- 5) 14 oz of bleached flour which costs \$5/oz were combined with 7 oz of unbleached flour which costs \$8/oz. Find the cost per oz of the mixture.
- 6) 8 kg of peanuts which cost \$4/kg were combined with 4 kg of spices which cost \$1/kg. Find the cost per kg of the mixture.
- 7) For her birthday party Amy mixed together 9 L of Brand A fruit punch and 6 L of Brand B. Brand A contains 34% fruit juice and Brand B contains 44% fruit juice. What percent of the mixture is fruit juice?
- 8) 2 gal. of a 15% sugar solution was mixed with 3 gal. of a 20% sugar solution. What is the concentration of the mixture?
- 9) 12 lbs. of mixed nuts containing 75% peanuts were mixed with 6 lbs. of another kind of mixed nuts that contain 60% peanuts. What percent of the new mixture is peanuts?
- 10) 3 qt. of a 20% saline solution was mixed with 2 qt. of a 60% saline solution. Find the concentration of the new mixture.
- 11) 4 m<sup>3</sup> of soil containing 45% clay was mixed into 1 m<sup>3</sup> of soil containing 20% clay. What is the clay content of the mixture?
- 12) 3 ft<sup>3</sup> of soil containing 46% silt was mixed into 2 ft<sup>3</sup> of soil containing 31% silt. What is the silt content of the mixture?
- 13) 4 lbs. of mixed nuts containing 70% peanuts were mixed with 20 lbs. of another kind of mixed nuts that contain 40% peanuts. What percent of the new mixture is peanuts?
- 14) 1 m<sup>3</sup> of clay was mixed into 4 m<sup>3</sup> of soil containing 35% clay. What is the clay content of the mixture?
- 15) A metal alloy weighing 3 lb. and containing 46% iron is melted and mixed with 1 lb. of a different alloy which contains 78% iron. What percent of the resulting alloy is iron?
- 16) 9 kg of Brand M Cinnamon was made by combining 6 kg of Indonesian cinnamon which costs \$14/kg with 3 kg of Thai cinnamon which costs \$11/kg. Find the cost per kg of the mixture.

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) 2 ml of a 15% alcohol solution was mixed with 8 ml of pure water. Find the concentration of the new mixture. **3%**
- 2) A saline solution was made by mixing 2 ml of a 58% saline solution and 1 ml of a 64% saline solution. Find the concentration of the new mixture. **60%**
- 3) 6 fl. oz. of a 20% acid solution was mixed with 2 fl. oz. of pure water. What is the concentration of the mixture? **15%**
- 4) 11 lbs. of mixed nuts containing 50% peanuts were mixed with 9 lbs. of another kind of mixed nuts that contain 30% peanuts. Peanuts are what percent of the new mixture? **41%**
- 5) 14 oz of bleached flour which costs \$5/oz were combined with 7 oz of unbleached flour which costs \$8/oz. Find the cost per oz of the mixture. **\$6/oz**
- 6) 8 kg of peanuts which cost \$4/kg were combined with 4 kg of spices which cost \$1/kg. Find the cost per kg of the mixture. **\$3/kg**
- 7) For her birthday party Amy mixed together 9 L of Brand A fruit punch and 6 L of Brand B. Brand A contains 34% fruit juice and Brand B contains 44% fruit juice. What percent of the mixture is fruit juice? **38%**
- 8) 2 gal. of a 15% sugar solution was mixed with 3 gal. of a 20% sugar solution. What is the concentration of the mixture? **18%**
- 9) 12 lbs. of mixed nuts containing 75% peanuts were mixed with 6 lbs. of another kind of mixed nuts that contain 60% peanuts. What percent of the new mixture is peanuts? **70%**
- 10) 3 qt. of a 20% saline solution was mixed with 2 qt. of a 60% saline solution. Find the concentration of the new mixture. **36%**
- 11) 4 m<sup>3</sup> of soil containing 45% clay was mixed into 1 m<sup>3</sup> of soil containing 20% clay. What is the clay content of the mixture? **40%**
- 12) 3 ft<sup>3</sup> of soil containing 46% silt was mixed into 2 ft<sup>3</sup> of soil containing 31% silt. What is the silt content of the mixture? **40%**
- 13) 4 lbs. of mixed nuts containing 70% peanuts were mixed with 20 lbs. of another kind of mixed nuts that contain 40% peanuts. What percent of the new mixture is peanuts? **45%**
- 14) 1 m<sup>3</sup> of clay was mixed into 4 m<sup>3</sup> of soil containing 35% clay. What is the clay content of the mixture? **48%**
- 15) A metal alloy weighing 3 lb. and containing 46% iron is melted and mixed with 1 lb. of a different alloy which contains 78% iron. What percent of the resulting alloy is iron? **54%**
- 16) 9 kg of Brand M Cinnamon was made by combining 6 kg of Indonesian cinnamon which costs \$14/kg with 3 kg of Thai cinnamon which costs \$11/kg. Find the cost per kg of the mixture. **\$13/kg**