

## Assignment

- 1) 1 oz of bleached flour which costs \$8/oz was combined with 5 oz of unbleached flour which costs \$2/oz. Find the cost per oz of the mixture.
- 2) 15 lbs. of mixed nuts containing 60% peanuts were mixed with 10 lbs. of another kind of mixed nuts that contain 65% peanuts. Peanuts are what percent of the new mixture?
- 3) 8 fl. oz. of a 50% acid solution was mixed with 2 fl. oz. of a 20% acid solution. Find the concentration of the new mixture.
- 4) For her birthday party Kristin mixed together 4 L of Brand A fruit punch and 6 L of Brand B. Brand A contains 45% fruit juice and Brand B contains 10% fruit juice. What percent of the mixture is fruit juice?
- 5) 16 lbs. of mixed nuts containing 28% peanuts were mixed with 8 lbs. of another kind of mixed nuts that contain 16% peanuts. What percent of the new mixture is peanuts?
- 6) 6 L of a 4% alcohol solution was mixed with 2 L of a 52% alcohol solution. What is the concentration of the mixture?
- 7) For his birthday party Julio mixed together 8 gal. of Brand A fruit punch and 2 gal. of Brand B. Brand A contains 5% fruit juice and Brand B contains 30% fruit juice. What percent of the mixture is fruit juice?
- 8) For her birthday party Maria mixed together 8 gal. of Brand A fruit punch and 2 gal. of Brand B. Brand A contains 58% fruit juice and Brand B contains 8% fruit juice. What percent of the mixture is fruit juice?
- 9) A metal alloy weighing 3 mg and containing 90% copper is melted and mixed with 10 mg of a different alloy which contains 25% copper. What percent of the resulting alloy is copper?
- 10) 21 oz of vegetable oil was made by combining 7 oz of soybean oil which costs \$4/oz with 14 oz of canola oil which costs \$1/oz. Find the cost per oz of the mixture.
- 11) 5 oz. of mixed nuts containing 67% peanuts were mixed with 18 oz. of another kind of mixed nuts that contain 44% peanuts. What percent of the new mixture is peanuts?
- 12) 9 kg of mixed nuts containing 70% peanuts were mixed with 6 kg of another kind of mixed nuts that contain 30% peanuts. Peanuts are what percent of the new mixture?
- 13) 4 lb of cane molasses which costs \$4/lb were combined with 2 lb of beet molasses which costs \$1/lb. Find the cost per lb of the mixture.
- 14) For his birthday party Ryan mixed together 7 gal. of Brand A fruit punch and 2 gal. of Brand B. Brand A contains 46% fruit juice and Brand B contains 10% fruit juice. What percent of the mixture is fruit juice?



- 15) For his birthday party Carlos mixed together 4 L of Brand A fruit punch and 8 L of Brand B. Brand A contains 8% fruit juice and Brand B contains 26% fruit juice. What percent of the mixture is fruit juice?
- 16) For her birthday party Micaela mixed together 7 L of Brand A fruit punch and 3 L of Brand B. Brand A contains 10% fruit juice and Brand B contains 30% fruit juice. What percent of the mixture is fruit juice?
- 17) 20 kg of Brand M Cinnamon was made by combining 6 kg of Indonesian cinnamon which costs \$19/kg with 14 kg of Thai cinnamon which costs \$9/kg. Find the cost per kg of the mixture.
- 18) 18 oz of Shanice's Premium Molasses was made by combining 6 oz of cane molasses which costs \$4/oz with 12 oz of beet molasses which costs \$1/oz. Find the cost per oz of the mixture.
- 19) 10 lbs. of mixed nuts containing 57% peanuts were mixed with 6 lbs. of another kind of mixed nuts that contain 33% peanuts. What percent of the new mixture is peanuts?
- 20) 10 yd<sup>3</sup> of soil containing 54% silt was mixed into 4 yd<sup>3</sup> of soil containing 19% silt. What is the silt content of the mixture?
- 21) 9 ml of a 15% alcohol solution was mixed with 6 ml of a 40% alcohol solution. Find the concentration of the new mixture.
- 22) For her birthday party Sumalee mixed together 9 gal. of Brand A fruit punch and 7 gal. of Brand B. Brand A contains 36% fruit juice and Brand B contains 52% fruit juice. What percent of the mixture is fruit juice?
- 23) 7 gal. of a 35% alcohol solution was mixed with 8 gal. of a 20% alcohol solution. What is the concentration of the mixture?
- 24) 5 yd<sup>3</sup> of soil containing 40% sand was mixed into 7 yd<sup>3</sup> of soil containing 28% sand. What is the sand content of the mixture?



## Answers to Assignment (ID: 1)

1) \$3/oz

2) 62%

3) 44%

4) 24%

5) 24%

6) 16%

7) 10%

8) 48%

9) 40%

10) \$2/oz

11) 49%

12) 54%

13) \$3/lb

14) 38%

15) 20%

16) 16%

17) \$12/kg

18) \$2/oz

19) 48%

20) 44%

21) 25%

22) 43%

23) 27%

24) 33%



## Assignment

- 1)  $6 \text{ m}^3$  of soil containing 50% sand was mixed into  $7 \text{ m}^3$  of soil containing 37% sand. What is the sand content of the mixture?
- 2) For his birthday party Wilbur mixed together 7 gal. of Brand A fruit punch and 4 gal. of Brand B. Brand A contains 38% fruit juice and Brand B contains 27% fruit juice. What percent of the mixture is fruit juice?
- 3) A metal alloy weighing 3 kg and containing 83% iron is melted and mixed with 10 kg of a different alloy which contains 70% iron. What percent of the resulting alloy is iron?
- 4) For his birthday party Paul mixed together 2 gal. of Brand A fruit punch and 10 gal. of Brand B. Brand A contains 58% fruit juice and Brand B contains 10% fruit juice. What percent of the mixture is fruit juice?
- 5) 4 lb of Mofor's special coffee blend was made by combining 3 lb of brand X coffee which costs \$14/lb with 1 lb of brand Y coffee which costs \$6/lb. Find the cost per lb of the mixture.
- 6) 5 lbs. of mixed nuts containing 48% peanuts were mixed with 6 lbs. of another kind of mixed nuts that contain 26% peanuts. What percent of the new mixture is peanuts?
- 7) A metal alloy weighing 4 lb. and containing 75% copper is melted and mixed with 6 lb. of a different alloy which contains 20% copper. What percent of the resulting alloy is copper?
- 8)  $9 \text{ m}^3$  of soil containing 50% sand was mixed into  $1 \text{ m}^3$  of soil containing 30% sand. What is the sand content of the mixture?
- 9) For her birthday party Jenny mixed together 6 L of Brand A fruit punch and 4 L of Brand B. Brand A contains 50% fruit juice and Brand B contains 10% fruit juice. What percent of the mixture is fruit juice?
- 10) 6 fl. oz. of a 50% acid solution was mixed with 10 fl. oz. of a 90% acid solution. What is the concentration of the mixture?
- 11) For her birthday party Jessica mixed together 3 gal. of Brand A fruit punch and 6 gal. of Brand B. Brand A contains 34% fruit juice and Brand B contains 10% fruit juice. What percent of the mixture is fruit juice?
- 12) 10 L of a 56% acid solution was mixed with 5 L of a 26% acid solution. Find the concentration of the new mixture.
- 13) 15 kg of Jacob's Premium Coffee Blend was made by combining 5 kg of arabica coffee beans which cost \$12/kg with 10 kg of robusta coffee beans which cost \$6/kg. Find the cost per kg of the mixture.
- 14) 12 gal. of a 60% saline solution was mixed with 6 gal. of a 30% saline solution. What is the concentration of the mixture?



- 15) 15 lb of Kayla's Red Hot Peanuts was made by combining 10 lb of peanuts which cost \$1/lb with 5 lb of spices which cost \$4/lb. Find the cost per lb of the mixture.
- 16) A metal alloy weighing 3 kg and containing 20% silver is melted and mixed with 12 kg of a different alloy which contains 70% silver. What percent of the resulting alloy is silver?
- 17) 6 qt. of a 35% acid solution was mixed with 9 qt. of a 50% acid solution. What is the concentration of the mixture?
- 18) For her birthday party Elisa mixed together 3 L of Brand A fruit punch and 2 L of Brand B. Brand A contains 55% fruit juice and Brand B contains 20% fruit juice. What percent of the mixture is fruit juice?
- 19) A metal alloy weighing 1 oz. and containing 60% platinum is melted and mixed with 4 oz. of a different alloy which contains 80% platinum. What percent of the resulting alloy is platinum?
- 20) 16 lbs. of mixed nuts containing 32% peanuts were mixed with 4 lbs. of another kind of mixed nuts that contain 62% peanuts. What percent of the new mixture is peanuts?
- 21) An acid solution was made by mixing 6 gal. of a 48% acid solution and 11 gal. of a 14% acid solution. What is the concentration of the mixture?
- 22) For his birthday party Stefan mixed together 6 gal. of Brand A fruit punch and 9 gal. of Brand B. Brand A contains 16% fruit juice and Brand B contains 6% fruit juice. What percent of the mixture is fruit juice?
- 23) A metal alloy weighing 2 mg and containing 18% copper is melted and mixed with 8 mg of a different alloy which contains 68% copper. What percent of the resulting alloy is copper?
- 24) A metal alloy weighing 2 oz. and containing 70% copper is melted and mixed with 3 oz. of a different alloy which contains 30% copper. What percent of the resulting alloy is copper?



## Answers to Assignment (ID: 2)

1) 43%

5) \$12/lb

9) 34%

13) \$8/kg

17) 44%

21) 26%

2) 34%

6) 36%

10) 75%

14) 50%

18) 41%

22) 10%

3) 73%

7) 42%

11) 18%

15) \$2/lb

19) 76%

23) 58%

4) 18%

8) 48%

12) 46%

16) 60%

20) 38%

24) 46%



## Assignment

- 1) 4 lbs. of mixed nuts containing 28% peanuts were mixed with 16 lbs. of another kind of mixed nuts that contain 33% peanuts. What percent of the new mixture is peanuts?
- 2) A saline solution was made by mixing 2 fl. oz. of a 50% saline solution and 3 fl. oz. of a 40% saline solution. What is the concentration of the mixture?
- 3) 6 fl. oz. of a 10% saline solution was mixed with 9 fl. oz. of a 50% saline solution. What is the concentration of the mixture?
- 4) For his birthday party John mixed together 9 gal. of Brand A fruit punch and 6 gal. of Brand B. Brand A contains 50% fruit juice and Brand B contains 15% fruit juice. What percent of the mixture is fruit juice?
- 5) A metal alloy weighing 12 kg and containing 70% copper is melted and mixed with 6 kg of a different alloy which contains 25% copper. What percent of the resulting alloy is copper?
- 6) 6 L of a 40% saline solution was mixed with 8 L of a 54% saline solution. What is the concentration of the mixture?
- 7) For his birthday party Ndiba mixed together 8 gal. of Brand A fruit punch and 4 gal. of Brand B. Brand A contains 40% fruit juice and Brand B contains 10% fruit juice. What percent of the mixture is fruit juice?
- 8) 8 oz of arugula which costs \$2/oz were combined with 4 oz of spinach which costs \$5/oz. Find the cost per oz of the mixture.
- 9) 3 lb of vegetable oil was made by combining 2 lb of soybean oil which costs \$4/lb with 1 lb of canola oil which costs \$1/lb. Find the cost per lb of the mixture.
- 10) 6 lb of James' special coffee blend was made by combining 1 lb of brand X coffee which costs \$24/lb with 5 lb of brand Y coffee which costs \$6/lb. Find the cost per lb of the mixture.
- 11) 2 yd<sup>3</sup> of soil containing 13% silt was mixed into 9 yd<sup>3</sup> of soil containing 46% silt. What is the silt content of the mixture?
- 12) 12 oz. of mixed nuts containing 30% peanuts were mixed with 8 oz. of another kind of mixed nuts that contain 55% peanuts. What percent of the new mixture is peanuts?
- 13) 8 lbs. of mixed nuts containing 40% peanuts were mixed with 12 lbs. of another kind of mixed nuts that contain 45% peanuts. Peanuts are what percent of the new mixture?
- 14) For his birthday party Eugene mixed together 9 L of Brand A fruit punch and 2 L of Brand B. Brand A contains 6% fruit juice and Brand B contains 39% fruit juice. What percent of the mixture is fruit juice?



- 15) 12 lb of premium salad mix was made by combining 4 lb of arugula which costs \$3/lb with 8 lb of spinach which costs \$6/lb. Find the cost per lb of the mixture.
- 16) 6 lbs. of mixed nuts containing 55% peanuts were mixed with 4 lbs. of another kind of mixed nuts that contain 45% peanuts. What percent of the new mixture is peanuts?
- 17) 3 oz of premium salad mix was made by combining 2 oz of arugula which costs \$5/oz with 1 oz of spinach which costs \$2/oz. Find the cost per oz of the mixture.
- 18) For her birthday party Danielle mixed together 8 gal. of Brand A fruit punch and 2 gal. of Brand B. Brand A contains 50% fruit juice and Brand B contains 40% fruit juice. What percent of the mixture is fruit juice?
- 19) A metal alloy weighing 7 oz. and containing 85% nickel is melted and mixed with 5 oz. of a different alloy which contains 25% nickel. What percent of the resulting alloy is nickel?
- 20) 7 L of a 50% acid solution was mixed with 3 L of a 20% acid solution. What is the concentration of the mixture?
- 21) 6 ft<sup>3</sup> of soil containing 35% clay was mixed into 4 ft<sup>3</sup> of soil containing 40% clay. What is the clay content of the mixture?
- 22) A sugar solution was made by mixing 12 gal. of a 55% sugar solution and 3 gal. of a 45% sugar solution. Find the concentration of the new mixture.
- 23) 5 yd<sup>3</sup> of soil containing 10% silt was mixed into 2 yd<sup>3</sup> of soil containing 45% silt. What is the silt content of the mixture?
- 24) A metal alloy weighing 1 mg and containing 55% nickel is melted and mixed with 4 mg of a different alloy which contains 75% nickel. What percent of the resulting alloy is nickel?





## Answers to Assignment (ID: 3)

1) 32%

5) 55%

9) \$3/lb

13) 43%

17) \$4/oz

21) 37%

2) 44%

6) 48%

10) \$9/lb

14) 12%

18) 48%

22) 53%

3) 34%

7) 30%

11) 40%

15) \$5/lb

19) 60%

23) 20%

4) 36%

8) \$3/oz

12) 40%

16) 51%

20) 41%

24) 71%



## Assignment

- 1) For her birthday party Kali mixed together 3 gal. of Brand A fruit punch and 10 gal. of Brand B. Brand A contains 21% fruit juice and Brand B contains 60% fruit juice. What percent of the mixture is fruit juice?
- 2) 4 gal. of a 88% alcohol solution was mixed with 2 gal. of a 16% alcohol solution. Find the concentration of the new mixture.
- 3) A metal alloy weighing 2 mg and containing 40% copper is melted and mixed with 8 mg of a different alloy which contains 5% copper. What percent of the resulting alloy is copper?
- 4) 16 kg of mixed nuts containing 55% peanuts were mixed with 4 kg of another kind of mixed nuts that contain 75% peanuts. Peanuts are what percent of the new mixture?
- 5) 12 kg of mixed nuts containing 74% peanuts were mixed with 20 kg of another kind of mixed nuts that contain 50% peanuts. What percent of the new mixture is peanuts?
- 6) 5 ml of a 34% saline solution was mixed with 11 ml of a 66% saline solution. What is the concentration of the mixture?
- 7) 6 qt. of a 40% alcohol solution was mixed with 3 qt. of a 55% alcohol solution. What is the concentration of the mixture?
- 8) 10 fl. oz. of a 10% acid solution was mixed with 6 fl. oz. of a 90% acid solution. Find the concentration of the new mixture.
- 9) 3 ft<sup>3</sup> of soil containing 50% sand was mixed into 7 ft<sup>3</sup> of soil containing 30% sand. What is the sand content of the mixture?
- 10) A sugar solution was made by mixing 6 L of a 80% sugar solution and 2 L of a 40% sugar solution. What is the concentration of the mixture?
- 11) For his birthday party Perry mixed together 7 gal. of Brand A fruit punch and 3 gal. of Brand B. Brand A contains 50% fruit juice and Brand B contains 20% fruit juice. What percent of the mixture is fruit juice?
- 12) 3 L of a 45% alcohol solution was mixed with 4 L of a 87% alcohol solution. Find the concentration of the new mixture.
- 13) A metal alloy weighing 7 mg and containing 85% platinum is melted and mixed with 3 mg of a different alloy which contains 25% platinum. What percent of the resulting alloy is platinum?
- 14) A metal alloy weighing 4 lb. and containing 85% copper is melted and mixed with 1 lb. of a different alloy which contains 30% copper. What percent of the resulting alloy is copper?



- 15) 8 fl. oz. of a 35% sugar solution was mixed with 4 fl. oz. of a 50% sugar solution. What is the concentration of the mixture?
- 16)  $3 \text{ m}^3$  of soil containing 56% sand was mixed into  $7 \text{ m}^3$  of soil containing 26% sand. What is the sand content of the mixture?
- 17) A metal alloy weighing 4 oz. and containing 90% platinum is melted and mixed with 12 oz. of a different alloy which contains 30% platinum. What percent of the resulting alloy is platinum?
- 18) 4 qt. of a 32% alcohol solution was mixed with 8 qt. of a 35% alcohol solution. Find the concentration of the new mixture.
- 19) 8 oz of bleached flour which costs \$7/oz were combined with 12 oz of unbleached flour which costs \$2/oz. Find the cost per oz of the mixture.
- 20) A metal alloy weighing 8 kg and containing 40% gold is melted and mixed with 2 kg of a different alloy which contains 20% gold. What percent of the resulting alloy is gold?
- 21) 9 kg of mixed nuts containing 30% peanuts were mixed with 6 kg of another kind of mixed nuts that contain 40% peanuts. Peanuts are what percent of the new mixture?
- 22) A metal alloy weighing 5 oz. and containing 10% iron is melted and mixed with 11 oz. of a different alloy which contains 90% iron. What percent of the resulting alloy is iron?
- 23) 2 oz of copper which costs \$3/oz were combined with 1 oz of tin which costs \$6/oz. Find the cost per oz of the mixture.
- 24) 9 kg of mixed nuts containing 36% peanuts were mixed with 11 kg of another kind of mixed nuts that contain 56% peanuts. What percent of the new mixture is peanuts?



## Answers to Assignment (ID: 4)

1) 51%  
5) 59%  
9) 36%  
13) 67%  
17) 45%  
21) 34%

2) 64%  
6) 56%  
10) 70%  
14) 74%  
18) 34%  
22) 65%

3) 12%  
7) 45%  
11) 41%  
15) 40%  
19) \$4/oz  
23) \$4/oz

4) 59%  
8) 40%  
12) 69%  
16) 35%  
20) 36%  
24) 47%



## Assignment

- 1) A metal alloy weighing 1 oz. and containing 85% gold is melted and mixed with 9 oz. of a different alloy which contains 35% gold. What percent of the resulting alloy is gold?
- 2) 3 oz of mixed nuts was made by combining 1 oz of walnuts which cost \$10/oz with 2 oz of peanuts which cost \$7/oz. Find the cost per oz of the mixture.
- 3) 8 lbs. of mixed nuts containing 60% peanuts were mixed with 12 lbs. of another kind of mixed nuts that contain 50% peanuts. Peanuts are what percent of the new mixture?
- 4) A metal alloy weighing 9 kg and containing 50% silver is melted and mixed with 1 kg of a different alloy which contains 20% silver. What percent of the resulting alloy is silver?
- 5) 12 kg of mixed nuts was made by combining 8 kg of walnuts which cost \$8/kg with 4 kg of peanuts which cost \$11/kg. Find the cost per kg of the mixture.
- 6) 5 oz. of mixed nuts containing 22% peanuts were mixed with 15 oz. of another kind of mixed nuts that contain 42% peanuts. What percent of the new mixture is peanuts?
- 7) 3 m<sup>3</sup> of soil containing 16% silt was mixed into 7 m<sup>3</sup> of soil containing 26% silt. What is the silt content of the mixture?
- 8) 5 oz of bleached flour which costs \$3/oz were combined with 15 oz of unbleached flour which costs \$7/oz. Find the cost per oz of the mixture.
- 9) A metal alloy weighing 10 oz. and containing 22% gold is melted and mixed with 2 oz. of a different alloy which contains 58% gold. What percent of the resulting alloy is gold?
- 10) 2 qt. of a 28% acid solution was mixed with 6 qt. of a 4% acid solution. Find the concentration of the new mixture.
- 11) 12 qt. of a 80% alcohol solution was mixed with 2 qt. of a 52% alcohol solution. Find the concentration of the new mixture.
- 12) A metal alloy weighing 7 oz. and containing 36% copper is melted and mixed with 9 oz. of a different alloy which contains 20% copper. What percent of the resulting alloy is copper?
- 13) For her birthday party Shawna mixed together 4 L of Brand A fruit punch and 8 L of Brand B. Brand A contains 22% fruit juice and Brand B contains 16% fruit juice. What percent of the mixture is fruit juice?
- 14) An acid solution was made by mixing 6 fl. oz. of a 30% acid solution and 9 fl. oz. of a 25% acid solution. What is the concentration of the mixture?



- 15) An acid solution was made by mixing 1 L of a 10% acid solution and 7 L of a 82% acid solution. What is the concentration of the mixture?
- 16) 2 qt. of a 33% saline solution was mixed with 3 qt. of a 58% saline solution. Find the concentration of the new mixture.
- 17) 2 gal. of a 70% sugar solution was mixed with 8 gal. of a 85% sugar solution. Find the concentration of the new mixture.
- 18) 8 yd<sup>3</sup> of soil containing 40% silt was mixed into 2 yd<sup>3</sup> of soil containing 20% silt. What is the silt content of the mixture?
- 19) 20 oz. of mixed nuts containing 68% peanuts were mixed with 4 oz. of another kind of mixed nuts that contain 62% peanuts. What percent of the new mixture is peanuts?
- 20) 8 lbs. of mixed nuts containing 70% peanuts were mixed with 16 lbs. of another kind of mixed nuts that contain 25% peanuts. What percent of the new mixture is peanuts?
- 21) A sugar solution was made by mixing 12 gal. of a 28% sugar solution and 3 gal. of a 88% sugar solution. Find the concentration of the new mixture.
- 22) 9 m<sup>3</sup> of soil containing 35% sand was mixed into 6 m<sup>3</sup> of soil containing 10% sand. What is the sand content of the mixture?
- 23) A metal alloy weighing 6 oz. and containing 54% nickel is melted and mixed with 2 oz. of a different alloy which contains 6% nickel. What percent of the resulting alloy is nickel?
- 24) 6 lb of bronze was made by combining 5 lb of copper which costs \$3/lb with 1 lb of tin which costs \$9/lb. Find the cost per lb of the mixture.



## Answers to Assignment (ID: 5)

1) 40%  
5) \$9/kg  
9) 28%  
13) 18%  
17) 82%  
21) 40%

2) \$8/oz  
6) 37%  
10) 10%  
14) 27%  
18) 36%  
22) 25%

3) 54%  
7) 23%  
11) 76%  
15) 73%  
19) 67%  
23) 42%

4) 47%  
8) \$6/oz  
12) 27%  
16) 48%  
20) 40%  
24) \$4/lb



## Assignment

- 1) 13 kg of mixed nuts containing 40% peanuts were mixed with 7 kg of another kind of mixed nuts that contain 60% peanuts. What percent of the new mixture is peanuts?
- 2) 3 L of a 40% sugar solution was mixed with 12 L of a 10% sugar solution. What is the concentration of the mixture?
- 3) 9 fl. oz. of a 20% saline solution was mixed with 1 fl. oz. of a 70% saline solution. Find the concentration of the new mixture.
- 4) 3 ft<sup>3</sup> of soil containing 18% sand was mixed into 1 ft<sup>3</sup> of soil containing 58% sand. What is the sand content of the mixture?
- 5) A metal alloy weighing 3 kg and containing 50% copper is melted and mixed with 9 kg of a different alloy which contains 46% copper. What percent of the resulting alloy is copper?
- 6) 3 L of a 70% sugar solution was mixed with 1 L of a 30% sugar solution. Find the concentration of the new mixture.
- 7) 23 kg of vegetable oil was made by combining 14 kg of soybean oil which costs \$1/kg with 9 kg of canola oil which costs \$4/kg. Find the cost per kg of the mixture.
- 8) 3 qt. of a 60% saline solution was mixed with 2 qt. of a 45% saline solution. Find the concentration of the new mixture.
- 9) 4 qt. of a 75% alcohol solution was mixed with 10 qt. of a 40% alcohol solution. Find the concentration of the new mixture.
- 10) A metal alloy weighing 5 lb. and containing 32% platinum is melted and mixed with 3 lb. of a different alloy which contains 8% platinum. What percent of the resulting alloy is platinum?
- 11) A saline solution was made by mixing 4 ml of a 40% saline solution and 6 ml of a 5% saline solution. Find the concentration of the new mixture.
- 12) 4 ft<sup>3</sup> of soil containing 20% sand was mixed into 2 ft<sup>3</sup> of soil containing 14% sand. What is the sand content of the mixture?
- 13) A saline solution was made by mixing 6 fl. oz. of a 10% saline solution and 2 fl. oz. of a 70% saline solution. Find the concentration of the new mixture.
- 14) 12 oz of vegetable oil was made by combining 4 oz of soybean oil which costs \$1/oz with 8 oz of canola oil which costs \$4/oz. Find the cost per oz of the mixture.
- 15) 1 yd<sup>3</sup> of soil containing 25% silt was mixed into 2 yd<sup>3</sup> of soil containing 40% silt. What is the silt content of the mixture?
- 16) 6 oz. of mixed nuts containing 34% peanuts were mixed with 9 oz. of another kind of mixed nuts that contain 54% peanuts. Peanuts are what percent of the new mixture?





- 17) A metal alloy weighing 11 mg and containing 40% copper is melted and mixed with 4 mg of a different alloy which contains 85% copper. What percent of the resulting alloy is copper?
- 18) 6 kg of Kim's Premium Molasses was made by combining 2 kg of cane molasses which costs \$4/kg with 4 kg of beet molasses which costs \$1/kg. Find the cost per kg of the mixture.
- 19) A metal alloy weighing 4 kg and containing 40% copper is melted and mixed with 6 kg of a different alloy which contains 70% copper. What percent of the resulting alloy is copper?
- 20) 9 oz of Brand M Cinnamon was made by combining 3 oz of Indonesian cinnamon which costs \$13/oz with 6 oz of Thai cinnamon which costs \$10/oz. Find the cost per oz of the mixture.
- 21) A metal alloy weighing 8 kg and containing 65% nickel is melted and mixed with 2 kg of a different alloy which contains 35% nickel. What percent of the resulting alloy is nickel?
- 22) 5 lb of mixed nuts was made by combining 1 lb of walnuts which cost \$2/lb with 4 lb of peanuts which cost \$7/lb. Find the cost per lb of the mixture.
- 23) 12 kg of mixed nuts containing 25% peanuts were mixed with 18 kg of another kind of mixed nuts that contain 45% peanuts. What percent of the new mixture is peanuts?
- 24) For her birthday party Nicole mixed together 7 L of Brand A fruit punch and 3 L of Brand B. Brand A contains 10% fruit juice and Brand B contains 30% fruit juice. What percent of the mixture is fruit juice?



## Answers to Assignment (ID: 6)

1) 47%  
5) 47%  
9) 50%  
13) 25%  
17) 52%  
21) 59%

2) 16%  
6) 60%  
10) 23%  
14) \$3/oz  
18) \$2/kg  
22) \$6/lb

3) 25%  
7) \$2.17/kg  
11) 19%  
15) 35%  
19) 58%  
23) 37%

4) 28%  
8) 54%  
12) 18%  
16) 46%  
20) \$11/oz  
24) 16%



## Assignment

- 1) An alcohol solution was made by mixing 9 gal. of a 70% alcohol solution and 6 gal. of a 20% alcohol solution. Find the concentration of the new mixture.
- 2) 12 gal. of a 28% acid solution was mixed with 8 gal. of a 18% acid solution. Find the concentration of the new mixture.
- 3) A metal alloy weighing 2 lb. and containing 10% platinum is melted and mixed with 9 lb. of a different alloy which contains 54% platinum. What percent of the resulting alloy is platinum?
- 4) 20 oz. of mixed nuts containing 35% peanuts were mixed with 5 oz. of another kind of mixed nuts that contain 70% peanuts. What percent of the new mixture is peanuts?
- 5) 8 ft<sup>3</sup> of soil containing 15% silt was mixed into 2 ft<sup>3</sup> of soil containing 35% silt. What is the silt content of the mixture?
- 6) 2 gal. of a 45% acid solution was mixed with 8 gal. of a 5% acid solution. Find the concentration of the new mixture.
- 7) 4 yd<sup>3</sup> of soil containing 52% silt was mixed into 1 yd<sup>3</sup> of soil containing 32% silt. What is the silt content of the mixture?
- 8) A metal alloy weighing 9 mg and containing 79% copper is melted and mixed with 3 mg of a different alloy which contains 67% copper. What percent of the resulting alloy is copper?
- 9) 4 L of a 10% sugar solution was mixed with 6 L of a 80% sugar solution. Find the concentration of the new mixture.
- 10) 18 kg of mixed nuts containing 70% peanuts were mixed with 9 kg of another kind of mixed nuts that contain 46% peanuts. What percent of the new mixture is peanuts?
- 11) 6 ft<sup>3</sup> of soil containing 54% clay was mixed into 3 ft<sup>3</sup> of soil containing 24% clay. What is the clay content of the mixture?
- 12) 2 m<sup>3</sup> of soil containing 46% sand was mixed into 9 m<sup>3</sup> of soil containing 24% sand. What is the sand content of the mixture?
- 13) 12 oz of copper which costs \$5/oz were combined with 8 oz of tin which costs \$10/oz. Find the cost per oz of the mixture.
- 14) 1 yd<sup>3</sup> of soil containing 40% clay was mixed into 9 yd<sup>3</sup> of soil containing 10% clay. What is the clay content of the mixture?



- 15) 6 oz of Krystal's special coffee blend was made by combining 2 oz of brand X coffee which costs \$7/oz with 4 oz of brand Y coffee which costs \$16/oz. Find the cost per oz of the mixture.
- 16) 1 qt. of a 21% sugar solution was mixed with 2 qt. of a 81% sugar solution. Find the concentration of the new mixture.
- 17) 6 yd<sup>3</sup> of soil containing 58% clay was mixed into 9 yd<sup>3</sup> of soil containing 38% clay. What is the clay content of the mixture?
- 18) 2 L of a 60% alcohol solution was mixed with 1 L of a 90% alcohol solution. What is the concentration of the mixture?
- 19) 6 ft<sup>3</sup> of soil containing 30% silt was mixed into 9 ft<sup>3</sup> of soil containing 50% silt. What is the silt content of the mixture?
- 20) 8 ml of a 85% saline solution was mixed with 2 ml of a 30% saline solution. What is the concentration of the mixture?
- 21) A sugar solution was made by mixing 4 ml of a 64% sugar solution and 12 ml of a 72% sugar solution. What is the concentration of the mixture?
- 22) 3 L of a 20% saline solution was mixed with 12 L of a 10% saline solution. What is the concentration of the mixture?
- 23) A saline solution was made by mixing 2 ml of a 15% saline solution and 8 ml of a 85% saline solution. What is the concentration of the mixture?
- 24) For her birthday party Emily mixed together 5 gal. of Brand A fruit punch and 10 gal. of Brand B. Brand A contains 25% fruit juice and Brand B contains 40% fruit juice. What percent of the mixture is fruit juice?



## Answers to Assignment (ID: 7)

1) 50%

5) 19%

9) 52%

13) \$7/oz

17) 46%

21) 70%

2) 24%

6) 13%

10) 62%

14) 13%

18) 70%

22) 12%

3) 46%

7) 48%

11) 44%

15) \$13/oz

19) 42%

23) 71%

4) 42%

8) 76%

12) 28%

16) 61%

20) 74%

24) 35%



## Assignment

- 1) For her birthday party Ashley mixed together 9 gal. of Brand A fruit punch and 3 gal. of Brand B. Brand A contains 5% fruit juice and Brand B contains 25% fruit juice. What percent of the mixture is fruit juice?
- 2) For her birthday party Chelsea mixed together 4 L of Brand A fruit punch and 8 L of Brand B. Brand A contains 40% fruit juice and Brand B contains 10% fruit juice. What percent of the mixture is fruit juice?
- 3) 20 lbs. of mixed nuts containing 15% peanuts were mixed with 5 lbs. of another kind of mixed nuts that contain 55% peanuts. Peanuts are what percent of the new mixture?
- 4) For his birthday party Daniel mixed together 2 gal. of Brand A fruit punch and 3 gal. of Brand B. Brand A contains 40% fruit juice and Brand B contains 55% fruit juice. What percent of the mixture is fruit juice?
- 5) 6 kg of mixed nuts containing 48% peanuts were mixed with 10 kg of another kind of mixed nuts that contain 32% peanuts. What percent of the new mixture is peanuts?
- 6) 7 m<sup>3</sup> of soil containing 50% silt was mixed into 3 m<sup>3</sup> of soil containing 20% silt. What is the silt content of the mixture?
- 7) For his birthday party Trevon mixed together 10 gal. of Brand A fruit punch and 4 gal. of Brand B. Brand A contains 37% fruit juice and Brand B contains 30% fruit juice. What percent of the mixture is fruit juice?
- 8) For her birthday party Shanice mixed together 6 L of Brand A fruit punch and 2 L of Brand B. Brand A contains 30% fruit juice and Brand B contains 50% fruit juice. What percent of the mixture is fruit juice?
- 9) A saline solution was made by mixing 12 fl. oz. of a 50% saline solution and 8 fl. oz. of a 40% saline solution. What is the concentration of the mixture?
- 10) For his birthday party Arjun mixed together 3 gal. of Brand A fruit punch and 2 gal. of Brand B. Brand A contains 50% fruit juice and Brand B contains 10% fruit juice. What percent of the mixture is fruit juice?
- 11) An alcohol solution was made by mixing 4 L of a 20% alcohol solution and 12 L of a 60% alcohol solution. Find the concentration of the new mixture.
- 12) A metal alloy weighing 4 mg and containing 50% gold is melted and mixed with 1 mg of a different alloy which contains 60% gold. What percent of the resulting alloy is gold?
- 13) A metal alloy weighing 12 kg and containing 80% nickel is melted and mixed with 4 kg of a different alloy which contains 20% nickel. What percent of the resulting alloy is nickel?
- 14) 4 yd<sup>3</sup> of soil containing 40% sand was mixed into 10 yd<sup>3</sup> of soil containing 33% sand. What is the sand content of the mixture?



- 15) 2 lb of walnuts which cost \$7/lb were combined with 3 lb of peanuts which cost \$12/lb. Find the cost per lb of the mixture.
- 16) 7 fl. oz. of a 64% acid solution was mixed with 5 fl. oz. of a 16% acid solution. Find the concentration of the new mixture.
- 17) An acid solution was made by mixing 3 gal. of a 45% acid solution and 2 gal. of a 25% acid solution. What is the concentration of the mixture?
- 18) For her birthday party Amy mixed together 6 gal. of Brand A fruit punch and 3 gal. of Brand B. Brand A contains 10% fruit juice and Brand B contains 25% fruit juice. What percent of the mixture is fruit juice?
- 19) 3 lb of peanuts which cost \$4/lb were combined with 6 lb of spices which cost \$1/lb. Find the cost per lb of the mixture.
- 20) A metal alloy weighing 3 kg and containing 75% iron is melted and mixed with 12 kg of a different alloy which contains 25% iron. What percent of the resulting alloy is iron?
- 21) 7 kg of mixed nuts containing 38% peanuts were mixed with 9 kg of another kind of mixed nuts that contain 22% peanuts. Peanuts are what percent of the new mixture?
- 22) A sugar solution was made by mixing 1 gal. of a 11% sugar solution and 2 gal. of a 53% sugar solution. Find the concentration of the new mixture.
- 23) For her birthday party Jenny mixed together 4 L of Brand A fruit punch and 2 L of Brand B. Brand A contains 30% fruit juice and Brand B contains 39% fruit juice. What percent of the mixture is fruit juice?
- 24) 6 kg of mixed nuts containing 18% peanuts were mixed with 9 kg of another kind of mixed nuts that contain 28% peanuts. What percent of the new mixture is peanuts?



## Answers to Assignment (ID: 8)

1) 10%  
5) 38%  
9) 46%  
13) 65%  
17) 37%  
21) 29%

2) 20%  
6) 41%  
10) 34%  
14) 35%  
18) 15%  
22) 39%

3) 23%  
7) 35%  
11) 50%  
15) \$10/lb  
19) \$2/lb  
23) 33%

4) 49%  
8) 35%  
12) 52%  
16) 44%  
20) 35%  
24) 24%





## Assignment

- 1) 14 oz of arabica coffee beans which cost \$13/oz were combined with 7 oz of robusta coffee beans which cost \$7/oz. Find the cost per oz of the mixture.
- 2) For his birthday party Jacob mixed together 9 gal. of Brand A fruit punch and 8 gal. of Brand B. Brand A contains 46% fruit juice and Brand B contains 12% fruit juice. What percent of the mixture is fruit juice?
- 3) An acid solution was made by mixing 8 qt. of a 10% acid solution and 7 qt. of a 70% acid solution. Find the concentration of the new mixture.
- 4) For her birthday party Gabriella mixed together 2 L of Brand A fruit punch and 3 L of Brand B. Brand A contains 30% fruit juice and Brand B contains 55% fruit juice. What percent of the mixture is fruit juice?
- 5) For her birthday party Stephanie mixed together 2 L of Brand A fruit punch and 8 L of Brand B. Brand A contains 30% fruit juice and Brand B contains 10% fruit juice. What percent of the mixture is fruit juice?
- 6) A metal alloy weighing 1 lb. and containing 70% platinum is melted and mixed with 7 lb. of a different alloy which contains 30% platinum. What percent of the resulting alloy is platinum?
- 7) An alcohol solution was made by mixing 4 qt. of a 3% alcohol solution and 8 qt. of a 24% alcohol solution. Find the concentration of the new mixture.
- 8) 3 fl. oz. of a 90% acid solution was mixed with 7 fl. oz. of a 10% acid solution. What is the concentration of the mixture?
- 9) 6 lb of Brand M Cinnamon was made by combining 1 lb of Indonesian cinnamon which costs \$17/lb with 5 lb of Thai cinnamon which costs \$11/lb. Find the cost per lb of the mixture.
- 10) 2 m<sup>3</sup> of soil containing 40% clay was mixed into 8 m<sup>3</sup> of soil containing 35% clay. What is the clay content of the mixture?
- 11) 11 gal. of a 70% sugar solution was mixed with 9 gal. of a 50% sugar solution. What is the concentration of the mixture?
- 12) 7 ml of a 6% sugar solution was mixed with 1 ml of a 46% sugar solution. What is the concentration of the mixture?
- 13) 5 lb of arabica coffee beans which cost \$9/lb were combined with 10 lb of robusta coffee beans which cost \$12/lb. Find the cost per lb of the mixture.
- 14) 8 ft<sup>3</sup> of soil containing 54% sand was mixed into 2 ft<sup>3</sup> of soil containing 39% sand. What is the sand content of the mixture?



- 15) 12 qt. of a 40% alcohol solution was mixed with 8 qt. of a 35% alcohol solution. Find the concentration of the new mixture.
- 16) 11 oz. of mixed nuts containing 60% peanuts were mixed with 4 oz. of another kind of mixed nuts that contain 45% peanuts. Peanuts are what percent of the new mixture?
- 17) 12 L of a 64% alcohol solution was mixed with 3 L of a 54% alcohol solution. Find the concentration of the new mixture.
- 18) 6 ft<sup>3</sup> of soil containing 23% clay was mixed into 2 ft<sup>3</sup> of soil containing 43% clay. What is the clay content of the mixture?
- 19) A sugar solution was made by mixing 3 qt. of a 56% sugar solution and 2 qt. of a 21% sugar solution. Find the concentration of the new mixture.
- 20) 7 yd<sup>3</sup> of soil containing 14% clay was mixed into 2 yd<sup>3</sup> of soil containing 32% clay. What is the clay content of the mixture?
- 21) 4 ft<sup>3</sup> of soil containing 50% sand was mixed into 2 ft<sup>3</sup> of soil containing 20% sand. What is the sand content of the mixture?
- 22) For her birthday party Brenda mixed together 8 gal. of Brand A fruit punch and 7 gal. of Brand B. Brand A contains 50% fruit juice and Brand B contains 35% fruit juice. What percent of the mixture is fruit juice?
- 23) For his birthday party Adam mixed together 8 L of Brand A fruit punch and 2 L of Brand B. Brand A contains 15% fruit juice and Brand B contains 40% fruit juice. What percent of the mixture is fruit juice?
- 24) A metal alloy weighing 1 lb. and containing 68% iron is melted and mixed with 3 lb. of a different alloy which contains 36% iron. What percent of the resulting alloy is iron?



## Answers to Assignment (ID: 9)

- 1) \$11/oz
- 5) 14%
- 9) \$12/lb
- 13) \$11/lb
- 17) 62%
- 21) 40%

- 2) 30%
- 6) 35%
- 10) 36%
- 14) 51%
- 18) 28%
- 22) 43%

- 3) 38%
- 7) 17%
- 11) 61%
- 15) 38%
- 19) 42%
- 23) 20%

- 4) 45%
- 8) 34%
- 12) 11%
- 16) 56%
- 20) 18%
- 24) 44%



## Assignment

- 1) 2 oz of sliced peaches which cost \$10/oz were combined with 3 oz of sliced bananas which cost \$5/oz. Find the cost per oz of the mixture.
- 2) A metal alloy weighing 5 lb. and containing 26% silver is melted and mixed with 11 lb. of a different alloy which contains 10% silver. What percent of the resulting alloy is silver?
- 3) A sugar solution was made by mixing 12 ml of a 70% sugar solution and 8 ml of a 80% sugar solution. Find the concentration of the new mixture.
- 4) 9 lb of Julia's Premium Coffee Blend was made by combining 5 lb of arabica coffee beans which cost \$13/lb with 4 lb of robusta coffee beans which cost \$4/lb. Find the cost per lb of the mixture.
- 5) For her birthday party Jasmine mixed together 4 gal. of Brand A fruit punch and 6 gal. of Brand B. Brand A contains 5% fruit juice and Brand B contains 35% fruit juice. What percent of the mixture is fruit juice?
- 6) 3 ml of a 1% sugar solution was mixed with 10 ml of a 40% sugar solution. Find the concentration of the new mixture.
- 7) 2 oz of bleached flour which costs \$7/oz were combined with 3 oz of unbleached flour which costs \$2/oz. Find the cost per oz of the mixture.
- 8) A sugar solution was made by mixing 4 qt. of a 50% sugar solution and 6 qt. of a 5% sugar solution. What is the concentration of the mixture?
- 9) 12 oz of premium salad mix was made by combining 3 oz of arugula which costs \$2/oz with 9 oz of spinach which costs \$6/oz. Find the cost per oz of the mixture.
- 10) 12 oz. of mixed nuts containing 50% peanuts were mixed with 4 oz. of another kind of mixed nuts that contain 62% peanuts. What percent of the new mixture is peanuts?
- 11) For his birthday party Cody mixed together 4 gal. of Brand A fruit punch and 2 gal. of Brand B. Brand A contains 10% fruit juice and Brand B contains 40% fruit juice. What percent of the mixture is fruit juice?
- 12) 11 kg of mixed nuts containing 52% peanuts were mixed with 12 kg of another kind of mixed nuts that contain 75% peanuts. Peanuts are what percent of the new mixture?
- 13) For her birthday party Aliyah mixed together 4 gal. of Brand A fruit punch and 7 gal. of Brand B. Brand A contains 10% fruit juice and Brand B contains 32% fruit juice. What percent of the mixture is fruit juice?
- 14) 21 kg of vegetable oil was made by combining 7 kg of soybean oil which costs \$4/kg with 14 kg of canola oil which costs \$1/kg. Find the cost per kg of the mixture.



- 15) For her birthday party Kali mixed together 4 L of Brand A fruit punch and 9 L of Brand B. Brand A contains 38% fruit juice and Brand B contains 12% fruit juice. What percent of the mixture is fruit juice?
- 16) 14 kg of brand X sugar which costs \$2/kg were combined with 7 kg of brand Y sugar which costs \$5/kg. Find the cost per kg of the mixture.
- 17) For his birthday party Norachai mixed together 9 gal. of Brand A fruit punch and 6 gal. of Brand B. Brand A contains 40% fruit juice and Brand B contains 10% fruit juice. What percent of the mixture is fruit juice?
- 18) A metal alloy weighing 8 lb. and containing 58% gold is melted and mixed with 1 lb. of a different alloy which contains 4% gold. What percent of the resulting alloy is gold?
- 19) For his birthday party Matt mixed together 5 L of Brand A fruit punch and 10 L of Brand B. Brand A contains 60% fruit juice and Brand B contains 54% fruit juice. What percent of the mixture is fruit juice?
- 20) 1  $\text{yd}^3$  of soil containing 14% sand was mixed into 7  $\text{yd}^3$  of soil containing 46% sand. What is the sand content of the mixture?
- 21) An alcohol solution was made by mixing 8 fl. oz. of a 15% alcohol solution and 12 fl. oz. of a 60% alcohol solution. Find the concentration of the new mixture.
- 22) 6 fl. oz. of a 70% saline solution was mixed with 12 fl. oz. of a 40% saline solution. What is the concentration of the mixture?
- 23) 10 oz of Indonesian cinnamon which costs \$10/oz were combined with 6 oz of Thai cinnamon which costs \$18/oz. Find the cost per oz of the mixture.
- 24) An alcohol solution was made by mixing 4 L of a 20% alcohol solution and 12 L of a 60% alcohol solution. What is the concentration of the mixture?



## Answers to Assignment (ID: 10)

1) \$7/oz  
5) 23%  
9) \$5/oz  
13) 24%  
17) 28%  
21) 42%

2) 15%  
6) 31%  
10) 53%  
14) \$2/kg  
18) 52%  
22) 50%

3) 74%  
7) \$4/oz  
11) 20%  
15) 20%  
19) 56%  
23) \$13/oz

4) \$9/lb  
8) 23%  
12) 64%  
16) \$3/kg  
20) 42%  
24) 50%

