Exercises (Mass Percent)

1. 5.0 grams of sugar are dissolved in 150 g of water What is the mass percent of sugar in the solution?

2. A 200-gram solution of alcohol contains 180 mL of water. What is the mass percent of alcohol? (Remember water's density.)

3. How many grams of NaBr are needed to make 50 g of a 5.0% solution?

4. How many grams of LiOH are needed to make 25 g of a 4.0 % solution?

5. What mass of NaF must be mixed with 25 mL of water to create a 3.5% by mass solution?

6. An 800 g solution of Kool-Aid contains 780 g of water. What is the mass percent of solute in this solution?

7. What is the mass percent of a solution created by adding 10 g of olive oil to 90 g of vegetable oil?

8. If a 4000g solution of salt water contains 40g of salt, what is its mass percent?

Exercises (Mass Percent)

1. 5.0 grams of sugar are dissolved in 150 g of water What is the mass percent of sugar in the solution?

   5/(5 + 150) * 100 % = 3.2 %

2. A 200-gram solution of alcohol contains 180 mL of water. What is the mass percent of alcohol? (Remember water's density.)

   (200 –180)/200 * 100 % = 10.0%

3. How many grams of NaBr are needed to make 50 g of a 5.0% solution?

   0.05(50) = 2.5 g

4. How many grams of LiOH are needed to make 25 g of a 4.0 % solution?

   0.04(25) = 1.0 g

5. What mass of NaF must be mixed with 25 mL of water to create a 3.5% by mass solution?

   x/(x+25) = 0.035
   x = 0.91 g

6. An 800 g solution of Kool-Aid contains 780 g of water. What is the mass percent of solute in this solution?

   (800 – 780)/800 * 100% = 2.5%

7. What is the mass percent of a solution created by adding 10 g of olive oil to 90 g of vegetable oil?

   10/(10+90)* 100% = 10%

8. If a 4000g solution of salt water contains 40g of salt, what is its mass percent?

   40/4000 *100% = 1.0%