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| *Parts Per Million Worksheet* |

1. What is the concentration of a solution in parts per million if 20.0 g of Na2S is dissolved in 40,000 g of solution?
2. The health of fish depends on the amount of oxygen dissolved in the water. A dissolved oxygen (DO) concentration between 6 parts per million and 8 parts per million is best for fish health. A DO concentration greater than 1 part per million is necessary for fish survival. A student’s fish tank contains fish, green plants, and 3800 grams of fish-tank water with 2.7 × 10-2 gram of dissolved oxygen.

Write a statement using this information that tells why the DO concentration in the water is or is not healthy for fish.

1. A shipment of shark meat was destroyed after it was found to contain 1.76 ppm methyl mercury which is higher than the legal limit of 1.00 ppm.
2. If the shark meat had a mass of 12.5 kg, what mass of methyl mercury was present in the shark meat?
3. What is the maximum number of grams of methyl mercury the shark meat could contain and still be considered safe to consume according to the legal limit?
4. Prolonged exposure to lead or lead salts is toxic. To prevent lead poisoning, the current standard for lead paint is 600.0 ppm. Some older paints had a much higher concentration of lead.
   1. An older can of paint contained 45 g of lead in a 900.0 g of paint. What is the concentration in ppm?
   2. How much lead is legally allowed in a 900.0 g can of paint by today’s standards?