Task:

What is the oxygen concentration in parts per million of a sample of lake water that has a mass of 310g and contains 2.24mg of dissolved oxygen?

Solution:

ppm — parts per million;

ppm(O2) = m(O2)/m(solution)*1000 000;

m(O2) — mass of dissolved oxygen [grams];

m(solution) — mass of solution [grams];

ppm(O2) = $2.24*10^{-3}$/310*1000 000 = 7.2 ppm;

Answer: 7.2 ppm