

>> If a gas mixture having a pressure of 3.7 atmospheres is 56% oxygen, what is the pressure of oxygen in atmospheres? Ok, in a situation like this, in a problem like this where you're talking about percentages, you have to identify three parts. First, what is the percentage? And that's the easiest part to find. The second, what is the entire amount of something you're talking about, the whole? In this case, the whole is our mixture, which is 3.7. And then the third part is the part. Ok? And the part of the whole in this case is going to be the pressure of oxygen. Ok? So we have our percent, our whole, and our part. Now the easiest way to work with a problem like this is to restate it in simple language. In this case, what we're saying in the problem is that oxygen is 56% of the mixture. Ok? So once we put this in words, we can now translate from words into math. Oxygen, of course, is going to be O₂. Or we could even put here the partial pressure of O₂ is, is equal, 56% translates to 56 over 100, of translates to times, and the mixture we know is the 3.7 atmospheres. Ok, so let's go ahead and put here the pressure for oxygen. Ok? Now we can just go ahead and actually work that; 56 over 100 is .56, times the 3.7 gives us 2.1 atmosphere.