How many moles are in 72.62 grams of O_2?

Solution: As you know, amount of substance can be calculated as: $n(O_2) = \frac{m(O_2)}{M(O_2)}$,

where $M(O_2)$ = 16·2=32 g/mol, – molar mass of oxygen.

$n(O_2) = \frac{72.62}{32} = 2.27$ mole;

Answer: 2.27 mole.