

# C11 - 3.3 - Moles < - > Particles/Atoms WS

How many atoms in two moles of nitrogen?

How many atoms in two moles of carbon?

How many particles in four moles of oxygen?

How many atoms in three moles of sodium?

How many particles in three moles of gold?

How many atoms in five moles of sulfur?

How many particles in three moles of nickel?

## C11 - 3.3 - Particles/Atoms < - > Moles WS

How many moles in  $3.46 \times 10^{24}$  particles of copper?

How many moles in  $2.12 \times 10^{24}$  particles of hydrogen?

How many moles in 250,000 atoms of potassium?

How many moles in  $12.62 \times 10^{24}$  atoms of silicon?

How many moles in  $18.10 \times 10^{23}$  particles of iodine?

How many moles in  $8.88 \times 10^{24}$  particles of gold?

How many moles in 982 atoms of silver?

## C11 - 3.3 - STP WS

*What is the volume occupied by 1 mol of  $O_{2(g)}$  at STP?*

*What is the volume occupied by 3 mol of  $H_2O_{(g)}$  at STP?*

*What is the volume occupied by 12 mol of  $N_{2(g)}$  at STP?*

*What is the volume occupied by 0.5 mol of  $CO_{2(g)}$  at STP?*

*How many moles of  $H_2O$  gas in a balloon with a volume of 100 L at STP?*

*How many moles of  $N_2O_{3(g)}$  gas in a balloon with a volume of 22.4 L at STP?*

*How many moles of  $CO_{2(g)}$  gas in a balloon with a volume of 22.4 L at STP?*

*How many moles of  $N_{2(g)}$  gas in a balloon with a volume of 10 L at STP?*

*How many moles of  $O_{2(g)}$  gas in a balloon with a volume of 200 L at STP?*