## Mole Conversion Video Problems

1. What is the mass, in grams, of 2.50 moles of methane, $\mathrm{CH}_{4}$ ?
2. How many moles of helium atoms are in 16 grams of helium?
3. What is the volume, in liters, of 0.50 moles of ammonia, $\mathrm{NH}_{3}$ ?
4. How many moles of propane, $\mathrm{C}_{3} \mathrm{H}_{8}$, are in 67.2 liters of propane?
5. A sample of carbon contains $9 \times 10^{23}$ atoms of carbon. How many moles of carbon are in the sample?
6. How many molecules of ethane, $\mathrm{C}_{2} \mathrm{H}_{6}$, are in 4 moles of ethane?
7. What is the mass, in grams, of $1.5 \times 10^{23}$ molecules of methane, $\mathrm{CH}_{4}$ ?
8. What volume, in liters, is occupied by 15 grams of ethane, $\mathrm{C}_{2} \mathrm{H}_{6}$ ?
