

Name: \_\_\_\_\_

## Moles

### *Atomic masses*

What is the mass in grams of:

1. 1 mol of sulfur (S)?
2. 1 mol of lithium (Li)?
3. 1 mol of xenon (Xe)?
4. 1 mol of molybdenum (Mo)?
5. 1 mol of calcium (Ca)?

### *Moles to masses (of elements)*

What is the mass in grams of:

1. 0.5 mol of carbon (C)?
2. 2.0 mol of sodium (Na)?
3. 5.5 mol of cobalt (Co)?

### *Masses to moles (of elements)*

How many moles of each element are in:

1. 2.0 g aluminum (Al)?
2. 250 g selenium (Se)?
3. 1 tonne (= 1000 kg) carbon (C)?

### *Formula masses*

What is the mass in grams of:

1. 1 mol  $\text{Na}_2\text{S}$ ?
2. 1 mol  $\text{H}_2\text{SO}_4$ ?
3. 1 mol  $\text{CO}_2$ ?

### *Masses to moles (of compounds)*

How many moles of each compound are in:

1. 454 g  $\text{C}_{12}\text{H}_{22}\text{O}_{11}$ ?
2. 1 kg  $\text{H}_2\text{O}$ ?
3. 3.67 tonnes  $\text{CO}_2$ ?