Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Hr.\_\_\_\_\_\_\_\_



You may use any periodic table, including the fine one on our website or in your notes.

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| --- | --- |
| 1. \_\_\_\_\_\_Avogadro’s number
2. \_\_\_\_\_\_Atomic mass
3. \_\_\_\_\_\_Mole
4. \_\_\_\_\_\_Molar mass
 | * 1. mass of one atom
	2. mass in grams of one mole of a substance
	3. the number of atoms or molecules in 1 mole of a substance
	4. SI unit used to measure amount (aka…number of) particles in a substance.
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1. If you have 25.49g Au, how many moles of gold do you have?
2. What is the mass of one helium atom in grams?
3. You have 0.50 g of helium atoms. How many grams of gold must you have to have the same number of atoms of each?
4. A lead fishing weight has a mass of 7.09g. Determine the number of moles of lead atoms in the fishing weight.
5. An aluminum can has a mass of 13.5g.
	1. Determine the number of moles of aluminum in an aluminum can.
	2. Determine the number of aluminum atoms in an aluminum can.
6. Convert 1.75x1026 atoms of potassium to moles of potassium
7. A chemist needs 4.52 moles of carbon to run a reaction, how many grams are needed to run the reaction 5 times?