

All work must be shown to receive credit. Avogadro's number  $6.022 \times 10^{23}/\text{mol}$

1. (4 points) In what ways are isotopes alike?

In what ways are they different?

2. (4 points) Give the correct name or formula for the following compounds

IUPAC Name	Formula
Titanium(III) sulfate	
Aluminum hypobromite	
	$\text{Na}_3\text{PO}_3$
	$\text{Cr}(\text{OH})_2$

3. (3 points) Calculate the number of moles of molybdenum that contain  $3.54 \times 10^{21}$  atoms of molybdenum
4. (3 points) Calculate the mass of 3.87 moles of platinum.
5. (3 points) Calculate the molar mass of sodium oxalate, ( $\text{Na}_2\text{C}_2\text{O}_4$ )
6. (3 points) Calculate the number of atoms of carbon in 3.50 mol of sodium oxalate.

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1. (4 points) In what ways are isotopes alike?

In what ways are they different?

2. (4 points) Give the correct name or formula for the following compounds

IUPAC Name	Formula
Cobalt(III) sulfate	
Aluminum perbromate	
	$\text{K}_3\text{PO}_3$
	$\text{Cu}(\text{OH})_2$

3. (3 points) Calculate the number of moles of molybdenum that contain  $7.32 \times 10^{21}$  atoms of molybdenum

4. (3 points) Calculate the mass of 4.64 moles of platinum.

5. (3 points) Calculate the molar mass of sodium oxalate, ( $\text{Na}_2\text{C}_2\text{O}_4$ )

6. (3 points) Calculate the number of atoms of carbon in 2.96 mol of sodium oxalate.