

**SHORT ANSWER**

Place the answer to each of the following in the space provided.

1. Explain what is happening at each of the following stages of Mitosis:

Prophase:

Metaphase:

Anaphase:

Telophase:

2. Explain the role of the following digestive structures:

Mouth:

Teeth:

Esophagus:

Stomach:

Small Intestine:

Large Intestine:

3. Complete the following chart and then draw Bohr Diagrams for the **IONS of P and Mg** (8 Marks).

Element	Symbol	Atomic Number	Atomic Mass	Number of Electrons	Number of Neutrons	Number of Protons
Phosphorus		15	31			
Magnesium			27			12

Phosphorus

Magnesium

4. What is the chemical formula of the following compounds? (4 marks)

- a. Sodium oxide \_\_\_\_\_
- b. Carbon dioxide \_\_\_\_\_
- c. Magnesium phosphate \_\_\_\_\_
- d. Lithium chloride \_\_\_\_\_
- e. Potassium sulfide \_\_\_\_\_
- f. iron (II) carbonate \_\_\_\_\_

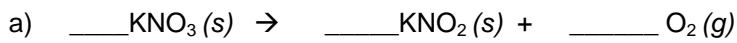
5. What is the name of the following compounds:

- a. H<sub>2</sub>O \_\_\_\_\_
- b. Be<sub>3</sub>N \_\_\_\_\_
- c. CuCl<sub>2</sub> \_\_\_\_\_
- d. CaCl<sub>2</sub> \_\_\_\_\_
- e. MgO \_\_\_\_\_
- f. PCl<sub>5</sub> \_\_\_\_\_

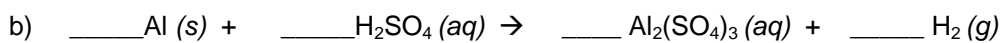
6. Classify each of the following reactions as either: **synthesis, decompositions, single displacement or double displacement reactions** (4 marks)

- a.  $\text{Mg} + \text{O}_2 \rightarrow \text{MgO}$  \_\_\_\_\_
- b.  $\text{Ag}_3\text{PO}_4 + \text{NaCl} \rightarrow \text{AgCl} + \text{Na}_3\text{PO}_4$  \_\_\_\_\_
- c.  $\text{Al} + \text{Cr}_2\text{O}_3 \rightarrow \text{Al}_2\text{O}_3 + \text{Cr}$  \_\_\_\_\_
- d.  $\text{H}_2\text{CO}_3 \rightarrow \text{H}_2\text{O} + \text{CO}_2$  \_\_\_\_\_

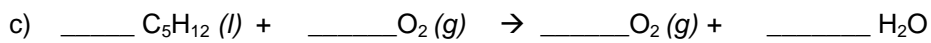
7. Balance the following chemical equations by placing the appropriate coefficient in the spaces provided. (3 marks)



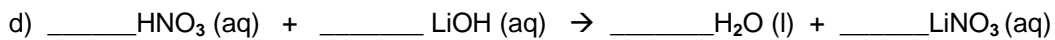
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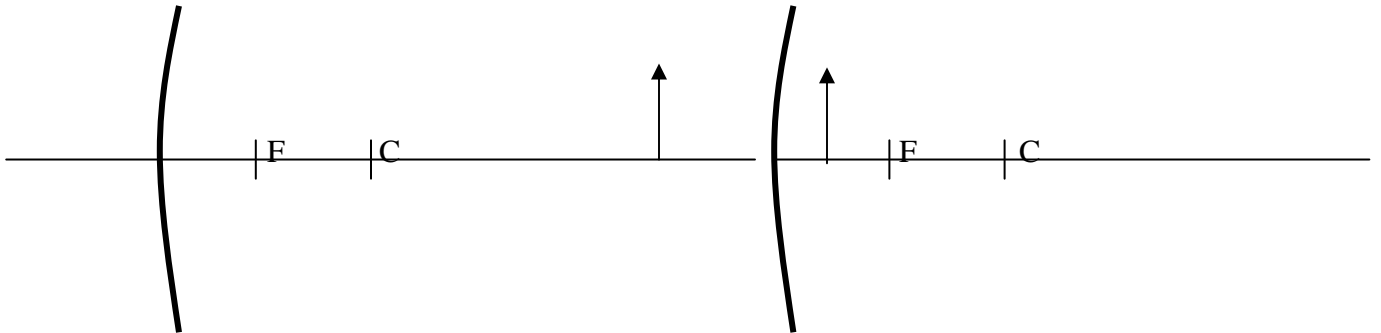


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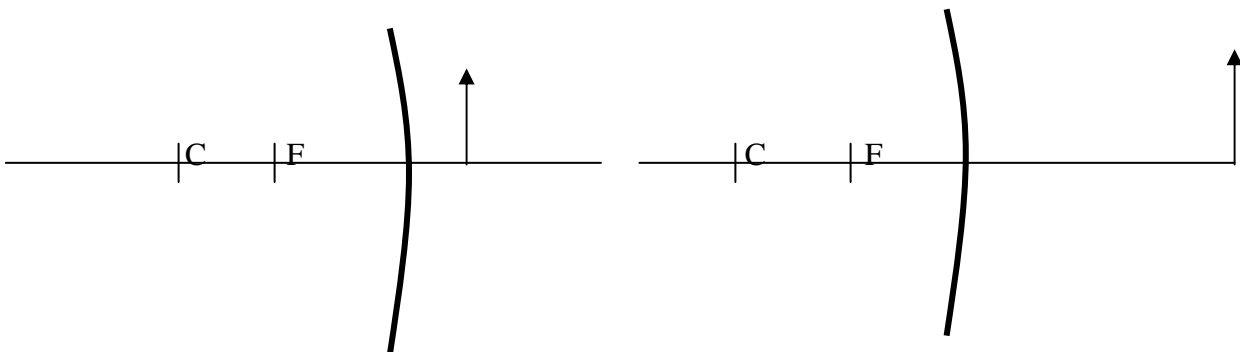


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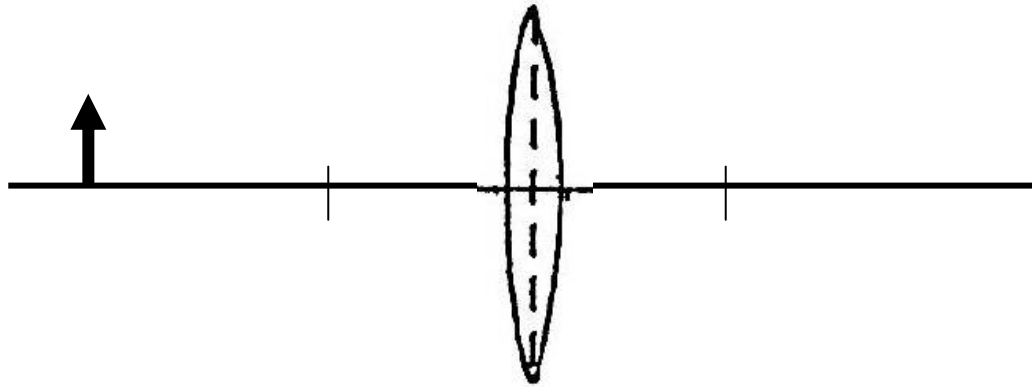
8. Concave Mirrors - Find the image and state the image characteristics.



9. Convex Mirrors – Find the image and state the image characteristics.



10. Locate the image in the **converging lens** below (4 marks).



Label the following terms on the diagram above (6 marks):

- lens
- principle axis
- primary focal point
- secondary focal point
- object
- image

11. Global warming and climate change is a really important issue (answer the following questions on back or a separate page)

- a. Explain the greenhouse effect.
- b. Describe the difference between global warming and climate change
- c. List 3 things that cause global warming and list 3 things you can do to help the problem.
- d. Explain how climate change affects terrestrial (land) ecosystems
- e. Explain how climate change affects aquatic (water) ecosystems