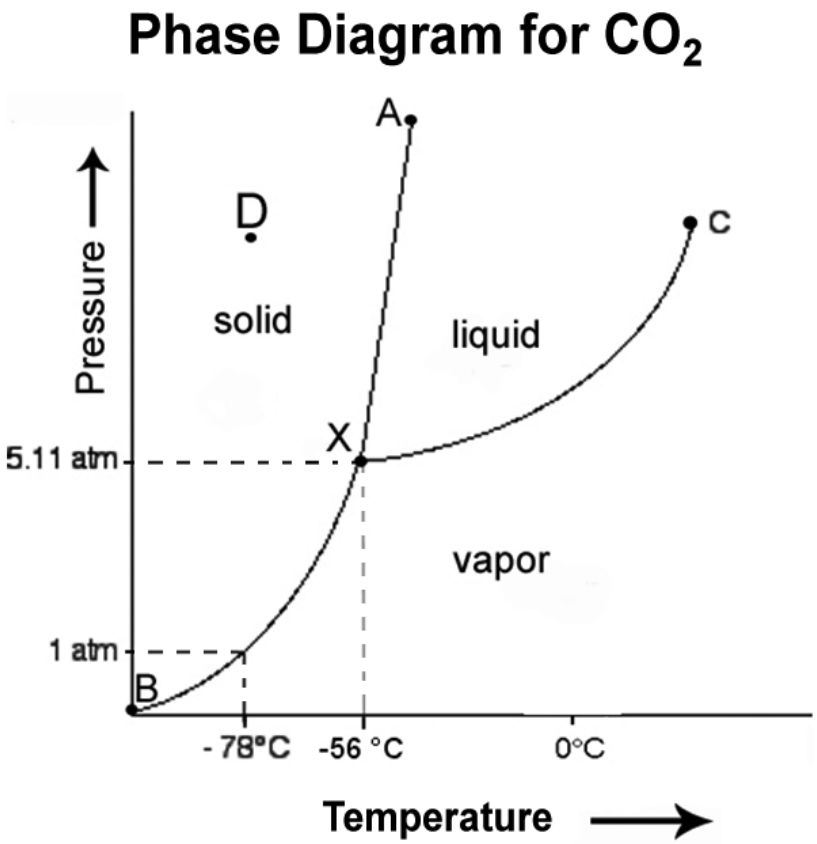
General Chemistry
Mr. MacGillivray
Quiz #28:
Phase Diagrams



1. . Given the phase diagram for carbon dioxide, illustrated above, state what phase or phases of CO_2 is/are present at each of the following temperature-pressure conditions. Circle the answer(s).

a)	at any point on between A and X on curve AX:	**S**	**L**	**G**
b)	at point X	**S**	**L**	**G**
c)	at 0 °C and 5.11 atm	**S**	**L**	**G**
d)	at -78 °C and 1 atm	**S**	**L**	**G**

2. Based on the phase diagram above, what effect would each of the following changes have on a sample of CO_2 at point D? Fill in the blanks.

a) increasing the temperature to 0 °C at constant pressure: It changes from ___ to ___
b) decreasing the pressure to 0.300 atm at constant temp. : It changes from ___ to ____

3. When CO_2 is a solid it is called "dry ice". What type of intermolecular forces of attraction is responsible for holding CO_2 molecules together with other CO_2 molecules in dry ice? Circle the answer.

Intermolecular forces of attraction Intramolecular forces of attraction

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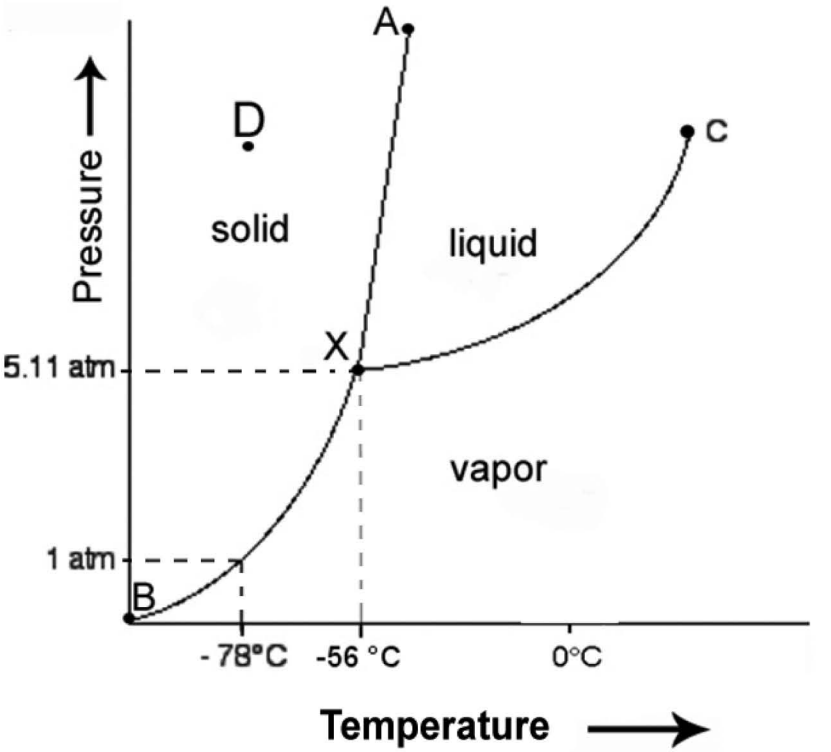
Phase Diagram for CO_2



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b) at point X	(S)	(L)	(G)
c) at 0 °C and 5.11 atm	S	L	(G)
d) at -78 °C and 1 atm	(S)	L	(G)

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(Intermolecular forces of attraction) Intramolecular forces of attraction