



# Properties of Matter

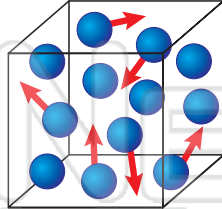
H.S.  
Phys

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

- 1 A **given mass** of an ideal gas is enclosed in a rigid-walled container. If the Kelvin **temperature** of the gas is **doubled**, its **pressure** will be \_\_\_\_\_.

Circle the answer letter.

- a. halved
- b. doubled
- c. quadrupled



- 6 A **microwave** and an **x-ray** are traveling in a **vacuum**. Compared to the wavelength and period of the microwave, the **x-ray** has a **wavelength** that is \_\_\_\_\_.

- a. longer and a period that is shorter
- b. longer and a period that is longer
- c. shorter and a period that is longer

- 2 Which graph best represents the **relationship between pressure (P) and volume (V)** for a fixed mass of an ideal gas at **constant temperature**? Circle it.

- 7 Which **phenomenon** best supports the theory that **matter has a wave nature**?

- a. electron momentum
- b. electron diffraction



## PREVIEW

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- 3
- 4
- a. temperature
- b. specific heat
- c. density



- b. cold air in the tire producing an increase in tire volume
- c. an increase in molecular potential energy of air molecules in the tire

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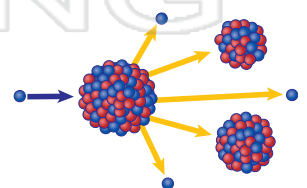
- 5 What is the **change in temperature** of a sample of **water** as it is heated from its **freezing point** to its **boiling point** at standard pressure? Circle the answer.

- 373 K      100 K
- 273 K      212 K



- 10 Which type of force **overcomes** the **repulsive electrostatic force between protons** in the nucleus of an atom?

- a. magnetic
- b. nuclear
- c. centrifugal





# Properties of Matter - Answer Key

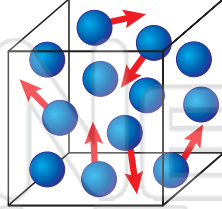
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