

GCSE Physics A (Gateway)

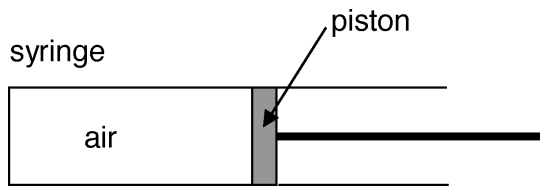
J249/01 Physics A P1-P4 and P9 (Foundation Tier)

Question Set 25

Multiple Choice Questions

P1: Matter

1 A syringe contains air.



The piston is pushed inwards.

How do the pressure and volume of the air in the syringe change?

	Pressure	Volume
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

Your answer

[1]

2 A sealed can contains gas.

The can is heated and the pressure of the gas increases.

How do the gas particles cause this increase in pressure?

- A** The average distance between the particles increases.
- B** The particles expand.
- C** The particles hit each other more frequently.
- D** The particles hit the can more frequently.

Your answer

[1]

3 These statements are about pressure and volume of a gas.

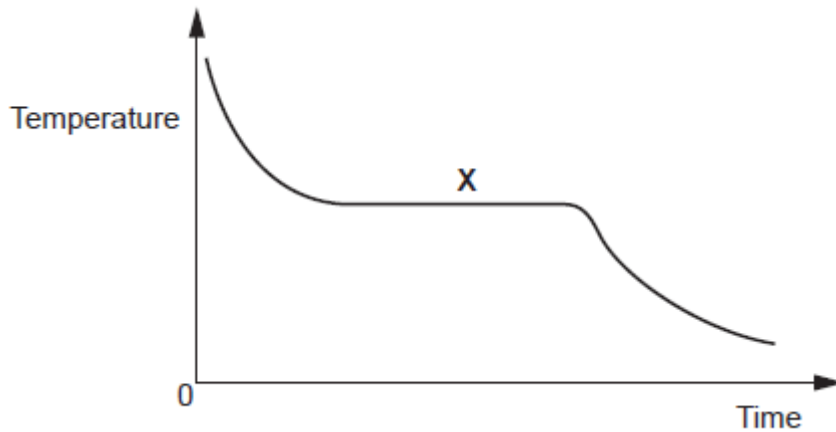
Which statement is correct?

- A Volume doubles, pressure doubles
- B Volume doubles, pressure halves
- C Volume halves, pressure halves
- D Volume halves, pressure stays constant

Your answer

[1]

4 A student studies how the temperature falls when a liquid cools.



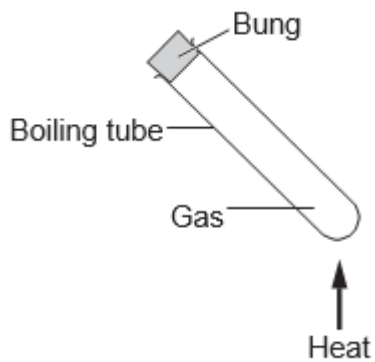
What is happening at point X on the graph?

- A Boiling
- B Freezing
- C Melting
- D Subliming

Your answer

[1]

- 5 A sealed boiling tube contains gas.



The boiling tube is heated.

What happens?

- A The particles in the gas evaporate.
- B The particles in the gas expand.
- C The particles in the gas move faster.
- D The particles in the gas move slower.

Your answer

[1]

- 6 Different states of matter have different densities.

Which of the following shows the states of matter in density order, starting with the lowest density?

- A Solid – liquid – gas
- B Solid – gas – liquid
- C Gas – liquid – solid
- D Liquid – gas – solid

Your answer

[1]

7 A cylinder contains a gas.

The volume of the gas is halved and the temperature remains the same.

What happens to the pressure of the gas?

- A It remains the same.
- B It halves.
- C It doubles.
- D It quadruples.

Your answer

[1]

8 An object has a volume of 1.5 m^3 and a mass of 3.0 kg .

What is the density of the object?

Use the equation: density = mass \div volume

- A 0.5 kg/m^3
- B 2.0 kg/m^3
- C 4.5 kg/m^3
- D 6.0 kg/m^3

Your answer

[1]

Total Marks for Question Set 25: 8

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