

Physics 3410 Quiz 9

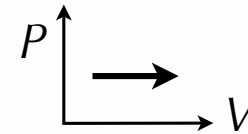
Please write the letter of the correct answer in the box provided.

Name: _____

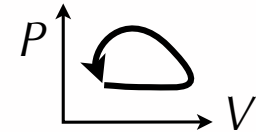
- ☐ 1. Which of the following is true about molecules in an ideal gas?
A) A particle is more likely to have a velocity of 0m/s than a velocity of 2m/s
B) A particle is more likely to have a speed of 0m/s than a speed of 2m/s
C) Both of these are true.

- ☐ 2. An *adiabatic* process is one where
A) no heat flows **B) the temperature stays constant** **C) the volume stays constant**

- ☐ 3. In this process, work is flowing ... the gas.
A) into **B) out of** **C) neither**

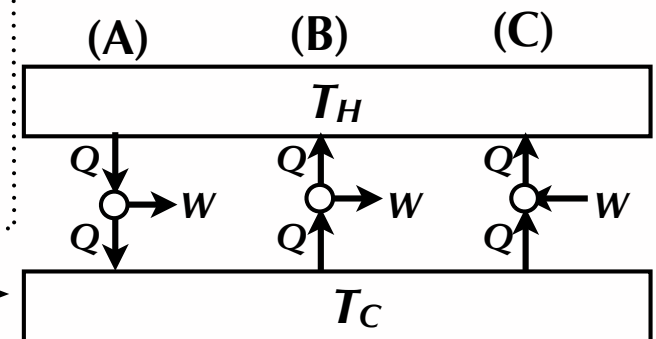


- ☐ 4. After one time around this cycle, the entropy of the gas...
A) increases **B) is the same** **C) decreases**



- ☐ 5. Why don't we make automobiles with Carnot engines?
A) they're impossible to build
B) they emit too much pollution
C) their power output is too low

- ☐ 6. Which of these shows a refrigerator?



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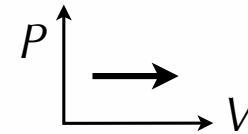
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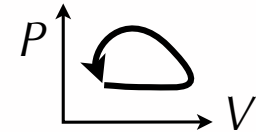
- A** 1. Which of the following is true about molecules in an ideal gas?
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- A** 2. An *adiabatic* process is one where
A) no heat flows **B) the temperature stays constant** **C) the volume stays constant**

- B** 3. In this process, work is flowing ... the gas.
A) into **B) out of** **C) neither**



- B** 4. After one time around this cycle, the entropy of the gas...
A) increases **B) is the same** **C) decreases**



- C** 5. Why don't we make automobiles with Carnot engines?
A) they're impossible to build
B) they emit too much pollution
C) their power output is too low

- C** 6. Which of these shows a refrigerator?

