

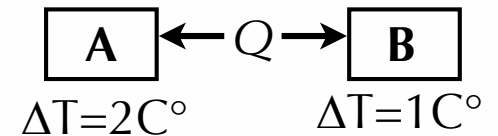
## Physics 3410 Quiz 2

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

Name: \_\_\_\_\_

☐ 1. The pressure on an ideal gas increases, but its volume stays the same. Its temperature  
**A) increases B) stays the same C) decreases**

☐ 2. Block A and B both receive the same amount of heat, but block B has a smaller increase in temperature. Which block has the larger heat capacity? **A) A B) B**



☐ 3. Standard atmospheric pressure, in Pascals (the SI unit of pressure), is roughly  
**A)  $10^{-5}$  Pa B) 1 Pa C)  $10^5$  Pa**

☐ 4. When a gas expands, work flows  
**A) into the gas ( $W > 0$ ) B) out of the gas ( $W < 0$ ) C) no work is done**



☐ 5. Roll 3 six-sided dice of different colors. How many possible outcomes are there?  
**A)  $6+3=9$  B)  $6 \times 3=18$  C)  $2^6=64$  D)  $6^3=216$  E)  $6!=720$  F)  $3^6=729$**

☐ 6. There are  $6!$  ways to rearrange ABCDEF. How many different ways are there to rearrange ADDDEE?  
**A)  $\frac{6!}{5!}$  B)  $\frac{6!}{3!+2!}$  C)  $\frac{6!}{3!2!}$**

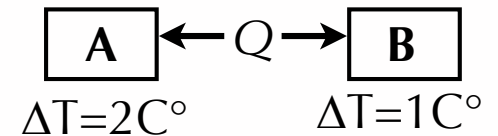
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**C** 6. There are  $6!$  ways to rearrange ABCDEF. How many different ways are there to rearrange ADDDEE?  
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