For this reaction (occurring in a vessel at STP)

$H_2(g) + (1/2)O_2(g) \rightarrow H_2O(g)$,

$\Delta H = -286$ kJ/mol.

how big is the value of $p\Delta V$ (per mole)?

If you flip a fair coin 8 times, which string of results are you more likely to get?

I: HHHHHHHH

II: HTHTTHTHH

1. String I
2. String II
3. They are equally probable
4. You can't tell without being given more information.

If you flip a fair coin 8 times, which result are you more likely to get?

i: 8 heads

ii: 4 heads and 4 tails

1. Result i
2. Result ii
3. They are equally probable
4. You can't tell without being given more information.

How many microstates correspond to macrostate i?
To macrostate ii?

Suppose I have two blocks of matter touching each other. Suppose each object has 4 DoFs (bins in which to place energy)
I have 4 packets of thermal energy.

How many ways are there of distributing all 4 packets to the left object and nothing to the right one?

How many ways are there to distribute 2 packets to each object?