# CHM 152
## Quiz 7

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Name Key

A man vacuums a carpet. All of the dirt is vacuumed. The dirt has a higher temperature after it's vacuumed. The "system" is the dirt.

1. What is the sign for $\Delta S$ for the system? Positive **negative** zero

2. What is the sign for $\Delta S$ for the Universe? **Positive** negative zero

3. What is the sign for $\Delta H$ for the system? **Positive** negative zero

4. What is the sign for $\Delta H$ for the surroundings? Positive **negative** zero

What is the sign of $\Delta G$ for a spontaneous process?

Positive **negative** zero

BONUS: How many electrons are transferred in the redox reaction?

$2\ KClO_3 \rightarrow 2\ KCl + 3\ O_2$

Cl +5 → -1 (gain 6 e⁻); O -2 → 0 (lose 2 e⁻ × 3 = 6 e⁻)

12 e⁻