



**Example Eight**

Rank the following substances from lowest to highest boiling point. Justify your answer.

Ne Kr Xe Ar

**Example Nine**

Examine the table below.

Substance	Boiling Point (°C)
C <sub>6</sub> H <sub>12</sub>	80.8
C <sub>2</sub> H <sub>5</sub> OH	78.4

Based on the boiling points, determine which substance must have the lower vapor pressure at 25 °C and the rationale behind this selection.

- C<sub>6</sub>H<sub>12</sub> has a lower vapor pressure because it has a more polarizable electron cloud.
- C<sub>6</sub>H<sub>12</sub> has a higher vapor pressure because it has a more polarizable electron cloud.
- C<sub>2</sub>H<sub>5</sub>OH has a lower vapor pressure due to hydrogen bonding between molecules.
- C<sub>2</sub>H<sub>5</sub>OH has a lower vapor pressure due to hydrogen bonding between molecules.