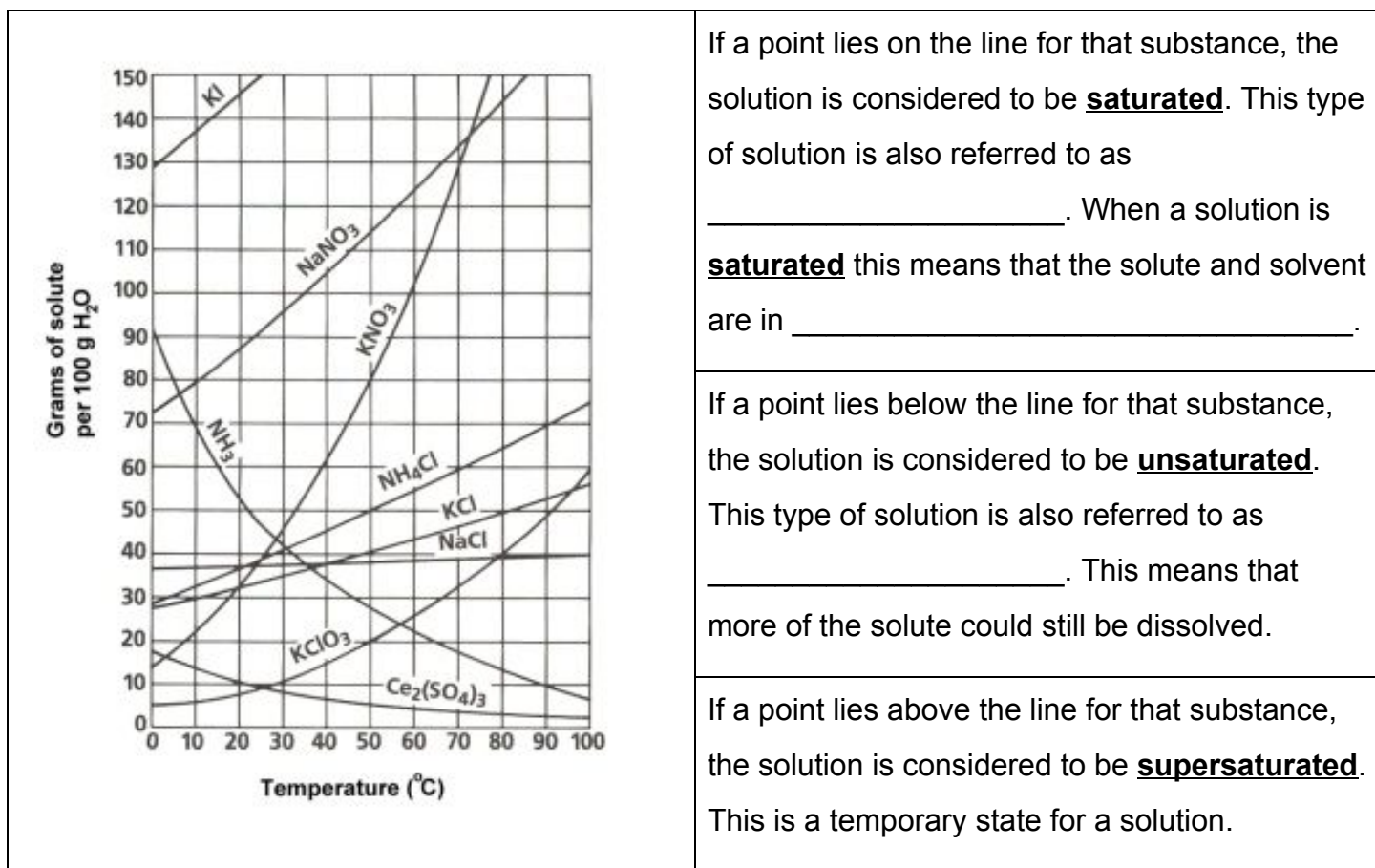# UNIT 4, SECTION 3 – SOLUBILITY CURVES

Solubility Curves:

Solubility curve graphs show the relationship of the amount of _____ that can be dissolved at specific _____. Amount of _____ is measured in grams of _____ per 100 grams of water (the traditional solvent). **(1 gram of H$_2$O = 1 mL of H$_2$O)**

To read a solubility curve graph, match the amount of _____ you are attempting to dissolve at the temperature given (if no temperature is given, assume 25°C).

If a point lies on the line for that substance, the solution is considered to be **saturated**. This type of solution is also referred to as _____. When a solution is **saturated** this means that the solute and solvent are in _____.

If a point lies below the line for that substance, the solution is considered to be **unsaturated**. This type of solution is also referred to as _____. This means that more of the solute could still be dissolved.

If a point lies above the line for that substance, the solution is considered to be **supersaturated**. This is a temporary state for a solution.

Solubility Curve Practice: Use the graph above!

- What is the saturation point for **Potassium chlorate** at 30°C? _____
- If you had 80 grams of **Potassium nitrate** dissolved per 100 g of H$_2$O, at what temperatures would it be considered to be supersaturated? (Hint: it is a range starting at 0°C) _____
- **Challenge**: At room temp. (25°C), which is **more soluble**: NH$_4$Cl or NaNO$_3$? _____