1- Semi-supervised learning is a machine learning paradigm where the model is trained on a small amount of labeled data and a large amount of unlabeled data. The idea is to leverage the unlabeled data to improve the performance of the model.

2- Reinforcement learning is a type of machine learning where an agent learns to make decisions by interacting with an environment. The agent receives feedback in the form of rewards or punishments based on its actions, and its goal is to learn the optimal policy that maximizes the cumulative reward.

3- Ensemble learning is a machine learning technique where multiple models are trained on the same dataset and their predictions are combined to make a final prediction. This can help improve the overall performance of the model by reducing variance and bias, and increasing generalization. Common ensemble methods include bagging, boosting, and stacking.