Fill in the Blank: Fill in the blank with the correct words.

1. Machine learning is a type of __ that allows computers to learn and improve on their own.
2. Machine learning is used in applications like __ recognition, language __, and self-driving __.
3. The computer "learns" by analysing large amounts of __ to find patterns and make __.
4. One type of machine learning is __ learning, where the computer is given labeled data to learn from.
5. Another type is __ learning, where the computer discovers patterns in data without being told what to look for.

Word bank: data, artificial intelligence, facial, cars, decisions, translation, supervised, unsupervised

Fill in the Blank: Fill in the blank with the correct words.

1. Machine learning is a subset of __ that enables computers to learn and improve from experience.
2. The __ in a machine learning system is responsible for making predictions or decisions.
3. Supervised learning is a type of machine learning where the algorithm is trained on __ data with known inputs and outputs.
4. In __ learning, the algorithm learns from unlabeled data and discovers patterns on its own.
5. __ learning is a type of machine learning where the algorithm learns through trial and error by receiving rewards or penalties.

Word Bank:
artificial intelligence, model, labeled, unsupervised, reinforcement

Multiple Choice Questions: Choose the correct answer from the choices for each question.

1. What is the main goal of machine learning?
   A. To create robots
   B. To improve computer programs over time
   C. To store large amounts of data
   D. To automate decision-making
2. Which of these is an example of machine learning?
   A. Calculating the area of a circle
   B. Translating text from one language to another
   C. Displaying images on a screen
   D. Both B and C

3. In supervised learning, the computer is given:
   A. Unlabeled data to analyze
   B. Labeled data to learn from
   C. Random data to sort through
   D. No data at all
4. Unsupervised learning is used when:
   A. The goal is to find hidden patterns in data
   B. The data is already labeled
   C. The computer needs to be told exactly what to do
   D. There is not enough data available
5. Which of these is a real-world application of machine learning?
   A. Playing chess
   B. Calculating the weather
   C. Identifying objects in images
   D. All of the above

Open Ended Questions: Answer the following questions in complete sentences:

1. Explain the difference between supervised and unsupervised learning.
2. Describe a real-world example of how machine learning is used in your daily life.
3. What are some of the potential benefits and challenges of machine learning?