**1. How would you define Machine Learning?**

**2. Can you name four types of problems where it shines?**

**3. What is a labeled training set?**

**4. What are the two most common supervised tasks?**

**5. Can you name four common unsupervised tasks?**

**6. What type of Machine Learning algorithm would you use to allow a robot to walk in various unknown terrains?**

**7. What type of algorithm would you use to segment your customers into multiple groups?**

**8. Would you frame the problem of spam detection as a supervised learning problem or an unsupervised learning problem?**

**9. What type of learning algorithm relies on a similarity measure to make predictions?**

**10. What is the difference between a model parameter and a learning algorithm’s hyperparameter?**

**11. What do model-based learning algorithms search for? What is the most common strategy they use to succeed? How do they make predictions?**

**12. Can you name four of the main challenges in Machine Learning?**

**13. If your model performs great on the training data but generalizes poorly to new instances, what is happening? Can you name three possible solutions?**

**14. What is a test set and why would you want to use it?**

**15. What is the purpose of a validation set?**

**16. What can go wrong if you tune hyperparameters using the test set?**