# Data Science Test

## 3. Math

### **Question 3.1**

**The matrix below shows the probability that you are in a state today given we know your state from yesterday. There are two states: each day either you read or you train.**

**When you read one day you are very likely to continue the book the following day.**

**When you train you decide with a coin flip whether to go out and train again the next day.**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Today | |
|  |  | Reading | Training |
| Yesterday | Reading | 0.9 | 0.1 |
| Training | 0.5 | 0.5 |

**Which mathematics concept would you use to calculate the probability of training at any given day? ( The probability of training after an infinite number of days?) You are not required to calculate it.**

Conditional probability, with dependent events.