Learning goals. By the end of this lecture, you will be able to:

1. Set up the mathematical expression for the area under the curve.*
2. Define left, right, midpoint Riemann sum approximate and state its properties.
3. Define the definite integral and explain its relation to the area under the curve.**

* Due to potential time constraints, we may limit today’s lecture to positive functions only.
** We will talk about the definite integral more today we will focus on defining it.