

Math 199, Fall 2023  
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### Preparation assignment 5 - Understanding integrals

**Estimated time:** 20-35 minutes.

**Point value:** 2 points.

**Goals:** Start forming a conceptual understanding of integration and its relationship with differentiation. We are taking a look at what the next few weeks will look like.

Take out a separate sheet of paper.

- 1) Watch [this video](#) by [3blue1brown](#). Share any thoughts you have surrounding these ideas.
- 2) Explain a relationship between integrals and derivatives using the concepts of area and slope.
- 3) The relationship between multiplication and division is similar to the relationship between integration and differentiation. Try to explain why or how this is so.