

FINAL EXAM TOPICS & EXAMPLE PROBLEMS For Spring 2022

- **Continuity**
 - Fall 2020, Problems 7 and 11
 - Fall 2019, Problem 1(i)
 - Spring 2018, Problem 1(i)
 - Fall 2017, Problem 1(iv)
- **Extreme values**
 - Fall 2020, Problems 39-42
 - Fall 2018, Problem 1(i)
- **Linear approximation**
 - Fall 2020, Problems 51 and 52
- **Riemann sums**
 - Fall 2020, Problems 53-57, 60
- **Comparing quantities graphically** (e.g., derivative, concavity, average rate of change, definite integral)
 - Fall 2020, Problems 82-85

- **Evaluating limits** (including L'Hopital's rule)
 - Spring 2018, Problem 3
 - Spring 2017, Problem 3
 - Fall 2017, Problem 3
- **Computing derivatives**
 - Spring 2019, Problem 5
 - Fall 2019, Problems 5(a) and 5(b)
 - Spring 2018, Problem 5
 - Fall 2018, Problem 5
 - Spring 2017, Problem 6
 - Fall 2017, Problem 8
- **Evaluating integrals**
 - Spring 2019, Problem 6
 - Fall 2019, Problems 5(c) and 5(d)
 - Spring 2018, Problem 9
 - Fall 2018, Problem 9
 - Spring 2017, Problem 9
 - Fall 2017, Problem 10
- **Evaluating expressions graphically**
 - Spring 2019, Problem 2(a)
 - Fall 2019, Problem 2(a)
 - Spring 2018, Problem 2
 - Fall 2018, Problem 2(a)
 - Spring 2017, Problem 2
 - Fall 2017, Problem 2
- **Interpreting average and instantaneous rates of change in context**
 - Fall 2020, Problems 19-23
- **Interpreting Riemann sums in context**

- Fall 2020, Problems 58, 60, 61, 62, 63, 64, 67, 70
- **Related Rates**
 - Spring 2019, Problem 8
 - Spring 2018, Problem 7
 - Fall 2018, Problem 7
 - Spring 2017, Problem 7
 - Fall 2017, Problem 7
- **Optimization**
 - Spring 2019, Problem 9
 - Fall 2019, Problem 8
 - Spring 2018, Problem 8
 - Fall 2018, Problem 8
 - Spring 2017, Problem 8
 - Fall 2017, Problem 9
- **Area between two curves**
 - Spring 2019, Problem 10(a)
 - Spring 2018, Problem 10(a)
 - Fall 2018, Problem 10(a)
 - Spring 2017, Problem 11(a)
- **Volume of a solid**
 - Spring 2019, Problem 10(b)
 - Spring 2018, Problem 10(b)
 - Fall 2018, Problem 10(b)
 - Spring 2017, Problem 11(b)
 - Fall 2017, Problem 12(a)
- **Interpreting expressions graphically**
 - Spring 2019, Problem 11
 - Spring 2017, Problem 12
 - Fall 2017, Problem 12(b)