

1. Evaluate a limit using the limit laws.
2. Evaluate a limit at infinity.
3. Evaluate an infinite limit.
4. Use limits to determine the horizontal and vertical asymptotes of a function.
5. Show, via the definition, that a function is continuous at a point.
6. Apply the Intermediate Value Theorem to show a function has a zero on a given interval.
7. Calculate the derivative of a polynomial function directly from the definition.
8. Calculate the derivative of a polynomial function using the power rule.
9. Calculate the derivative of a trigonometric function.
10. Calculate the derivative of a function using the product rule.
11. Calculate the derivative of a function using the quotient rule.
12. Calculate the derivative of a function using the chain rule.
13. Calculate the derivative of a function using a combination of the power, product, quotient, and/or chain rule.
14. Find the equation of a tangent line to a curve at a given point.
15. Correctly find the derivative of an implicit function.
16. Correctly set up a problem involving at least two related rates.
17. Solve a problem involving at least two related rates.
18. Identify the intervals on which a function is increasing and/or decreasing.
19. Identify the intervals on which a function is concave up and/or concave down.

20. Find all critical values of a function.
21. Use the 1st derivative test to classify extrema of a function.
22. Use the 2nd derivative test to classify extrema of a function.
23. Apply the Extreme Value Theorem to a problem.
24. Apply the Mean Value Theorem to a problem.
25. Correctly set up an optimization problem using the methods of Calculus.
26. Solve an optimization problem using the methods of Calculus.
27. Calculate an antiderivative of a polynomial function.
28. Calculate an antiderivative of a trigonometric function.
29. Use a finite summation to approximate the area under a curve.
30. Calculate a definite integral using the Riemann Sum.
31. Evaluate a definite integral using the Fundamental Theorem of Calculus.
32. Evaluate an indefinite integral.
33. Evaluate an indefinite integral using substitution.
34. Calculate the derivative of a logarithmic function.
35. Calculate the derivative of an exponential function.
36. Calculate a derivative using logarithmic differentiation.
37. Calculate the derivative of an inverse trigonometric function.
38. Evaluate a limit using L'Hospital's rule.