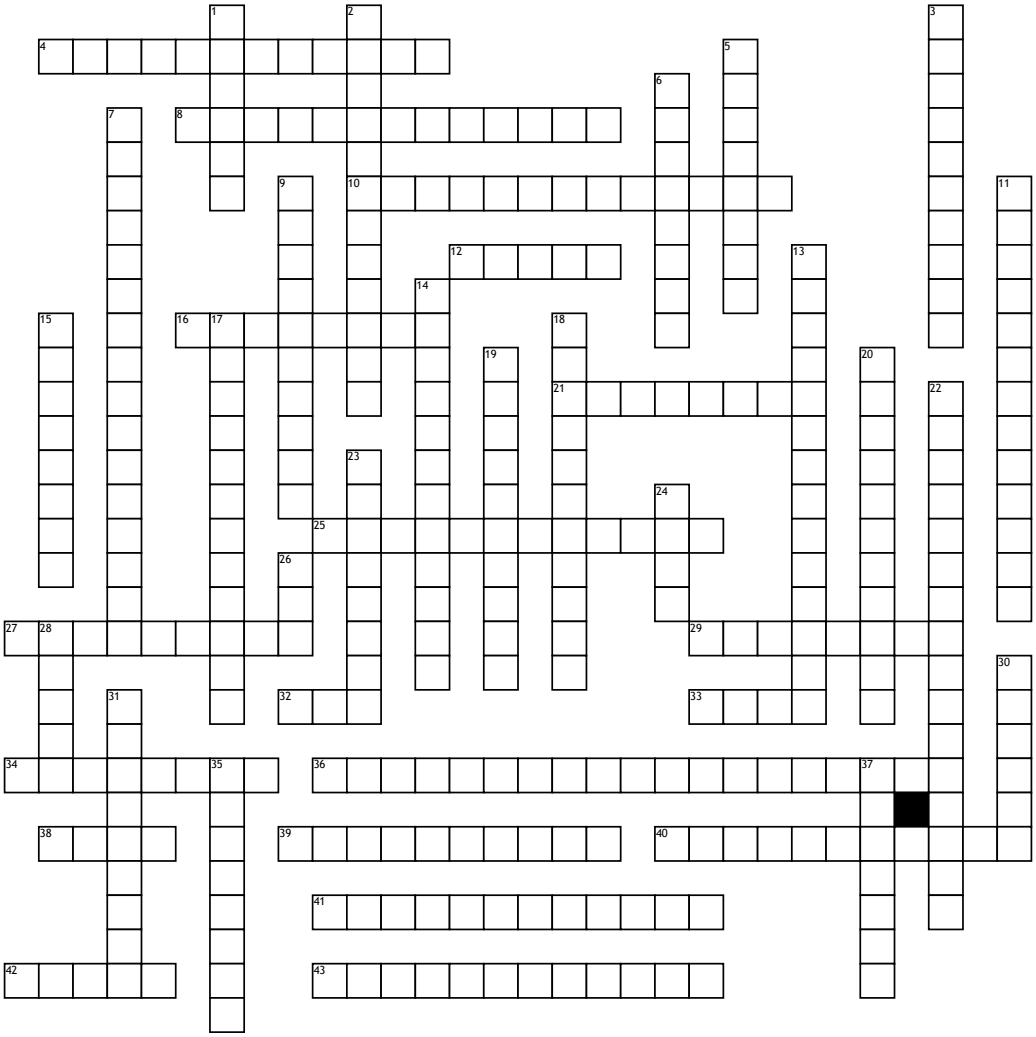
Name: _____ Date: _____

Calculus



Across

4. d/dx f/g = f'(x)g(x) - g'(x)f(x) / g(x)^2
8. Guarantees graph where slope=0 f'(x)=0
10. continiuty implies ____
12. ___: the value that a function approaches as the domain approaches a specific value
16. ___ limit: a limit taken as the varaible approaches infinity or -infinity
21. ___ rule: d/dx [c] = 0
25. Derivative of a velocity function
27. ___: a line that a graph approaches but never touches
29. ___ maximum: the highest point over the entire domain of a function
32. antiderivative of 1/x
33. Derivative of Sinx
34. ___ minimum: the lowest point in a particular sction of a graph
36. derivative of cotx
38. Antiderivative of cosx
39. Definition of .... Lim h➡️0 f(x+h) -f(x)/h
40. points of ___ can be found by taking the 2nd derivative
41. ___ equations: relate a function with one or more of its derivatives
42. ___ rule: d/dx x^n = nx^n-1
43. V=pi [f(x)^2 - g(x)^2] dx

Down

1. Concavity can be found by taking the ___ derivative
2. U ___ can be used when integrating complex integrals
3. Differentiability implies ____
5. sigma ___ : allows a long sum to be written compactly
6. ___ differentation allows you to find the derivative of y with respect to x
7. Guarntees a particular slope on a curve given the average slope between endpoints
9. if a graph has no holes, gaps, or discontinuities it is ___
11. when a function is not continuous it has ___
13. antiderivative of tanx
14. Derivative of cosx
15. ___ points can be found by taking the first derivative
17. Antiderivative of sinx
18. Derivative of tanx
19. V=pi [R(x)]^2 dx
20. d/dx fg = f'(x)g(x) + g'(x)f(x)
22. derivative of csc x
23. Derivative of sec x
24. point slope ___: y-y1=m(x-x1)
26. ln e = ___
28. how fast a function is increasing or decreasing
30. slope ___ consists of short line segments representing slope (steepness) sketched at lots of different points
31. d/dx f(g(x)) = f'(g(x))g'(x)
35. Derivative of a position function
37. maximum or minimum

Word Bank

notation
inflections
limit
continuous
one
absolute
Mean Value Theorem
form
Sec squared x
second
relative
Constant
integrability
Negative sinx
power
extrema
Product rule
Rolle's Theorem
substitution
negative cscx cotx
Velocity
Quotient rule
negative ln cosx
Continuity
Secx tanx
lnx
Derivative
discontinuity
differential
infinite
Acceleration
Negative cosx
Implicit
chain rule
Sinx
Asymptote
slope
Cosx
negative csc squared x
Disc Method
critical
Washer Method
fields