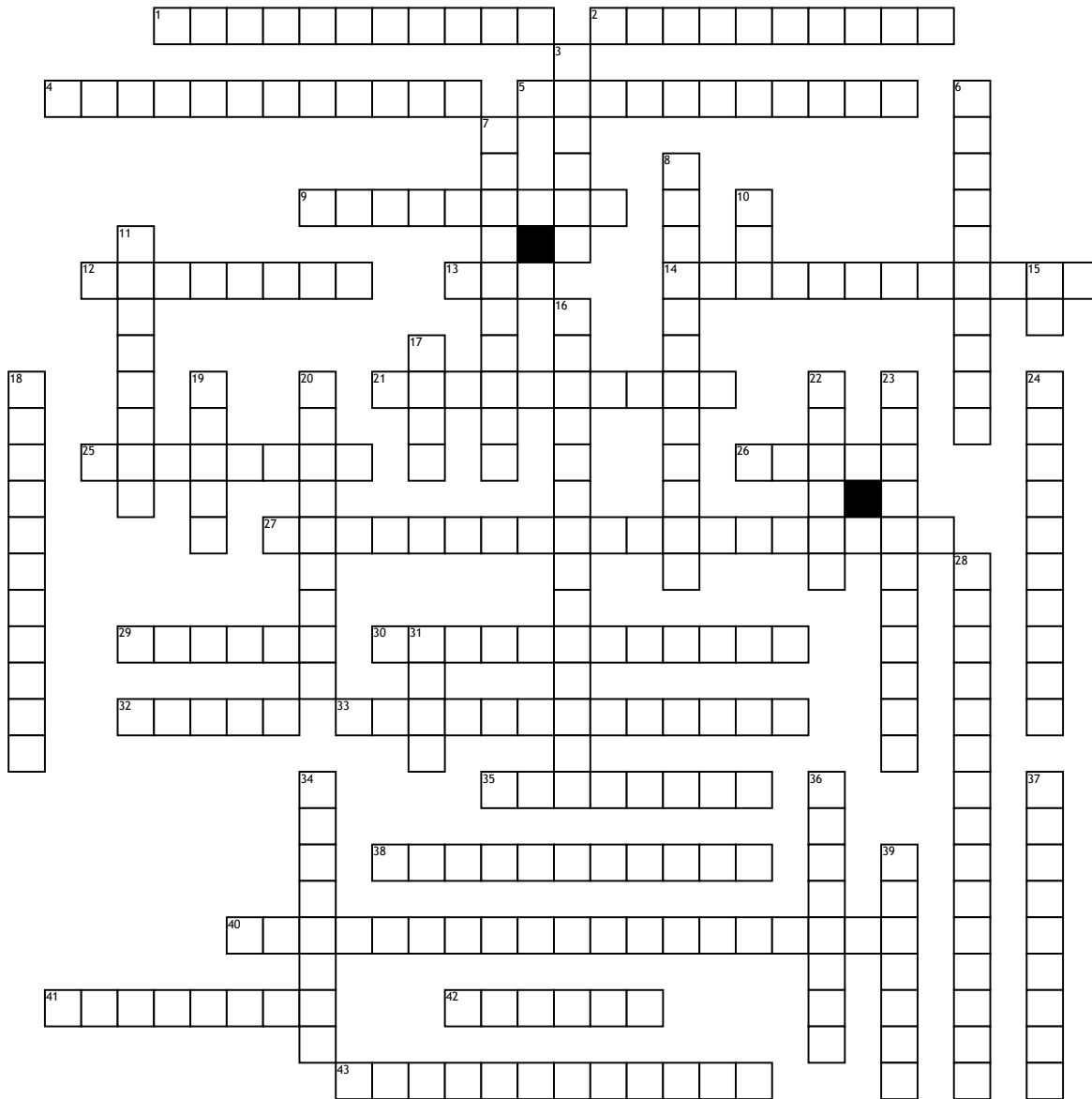


# AP CALCULUS VOCABULARY



## Across

1. The derivative of the product of two functions is:  $f(x)g'(x) + g(x)f'(x)$
2. A point at which the curve begins to change concavity is an \_\_\_\_ point
4. The difference in distance between where you start and where you stop
5. Used to find the area under a curve via summing up rectangles
9. When integrating,  $f(x)$  is the
12. Term referring to a function in which the highest power appears in the numerator
13. (Abbreviated) States that between 2 different values exists a value
14. Represents the height of the rectangle at the point  $(c, f(c))$
21. Formula for the slope of a tangent line to a function on any point  $x$  of that function
25. Set of all real numbers between two given numbers
26. What happens to  $y$  as  $x$  gets close to a certain value
27. Inverse process to differentiation
29. A line is \_\_\_\_ when it is perpendicular to a function
30. The rate of change of velocity is
32. Greek symbol which means "change in..."
33. This kind of velocity is represented by a tangent line.
35. The derivative of position

38.  $\frac{d}{dx} [f(x) * g(x)] = f(x) * g'(x) + g(x) * f'(x)$

40. Process used to approximate the tangent line at a certain point
41. The type of differentiation used when  $y$  is expressed in terms of  $x$
42. Used in exchange with the word ABSOLUTE
43. The derivative of the quotient of two functions is found using the
- Down**
3. This kind of line joins two points of a curve.
6. A function is \_\_\_\_ when the  $y$ -value increases as the  $x$ -value increases
7. The slope of the line tangent to a function at any point on the function
8. The derivative of cosine
10.  $\frac{d}{dx}[x] =$
11. The derivative of any constant is 0 this the \_\_\_\_ rule.
15. A concave \_\_\_\_ curve holds water
16. Functions such as  $e^x$  and  $\ln(x)$  are
17. The derivative of acceleration is
18. The process of taking anti-derivatives
19. The absolute value of velocity
20.  $[f(g(x))]' = f'(g(x)) * g'(x)$
22. When integrating,  $a$  and  $b$  are the \_\_\_\_ of integration
23. Term referring to a function in which the highest power appears in the denominator

24. A function is this when the  $y$ -value decreases as the  $x$ -value increases
28. The highest point on a function
31. When two curves meet at a sharp point
34. An integral with limits of integration is considered to be
36. This differentiation is used when  $y$  cannot be expressed explicitly in terms of  $x$ .
37. Line or curve which a function approaches without ever actually touching or crossing
39. This type of line touches the curve at one point only.