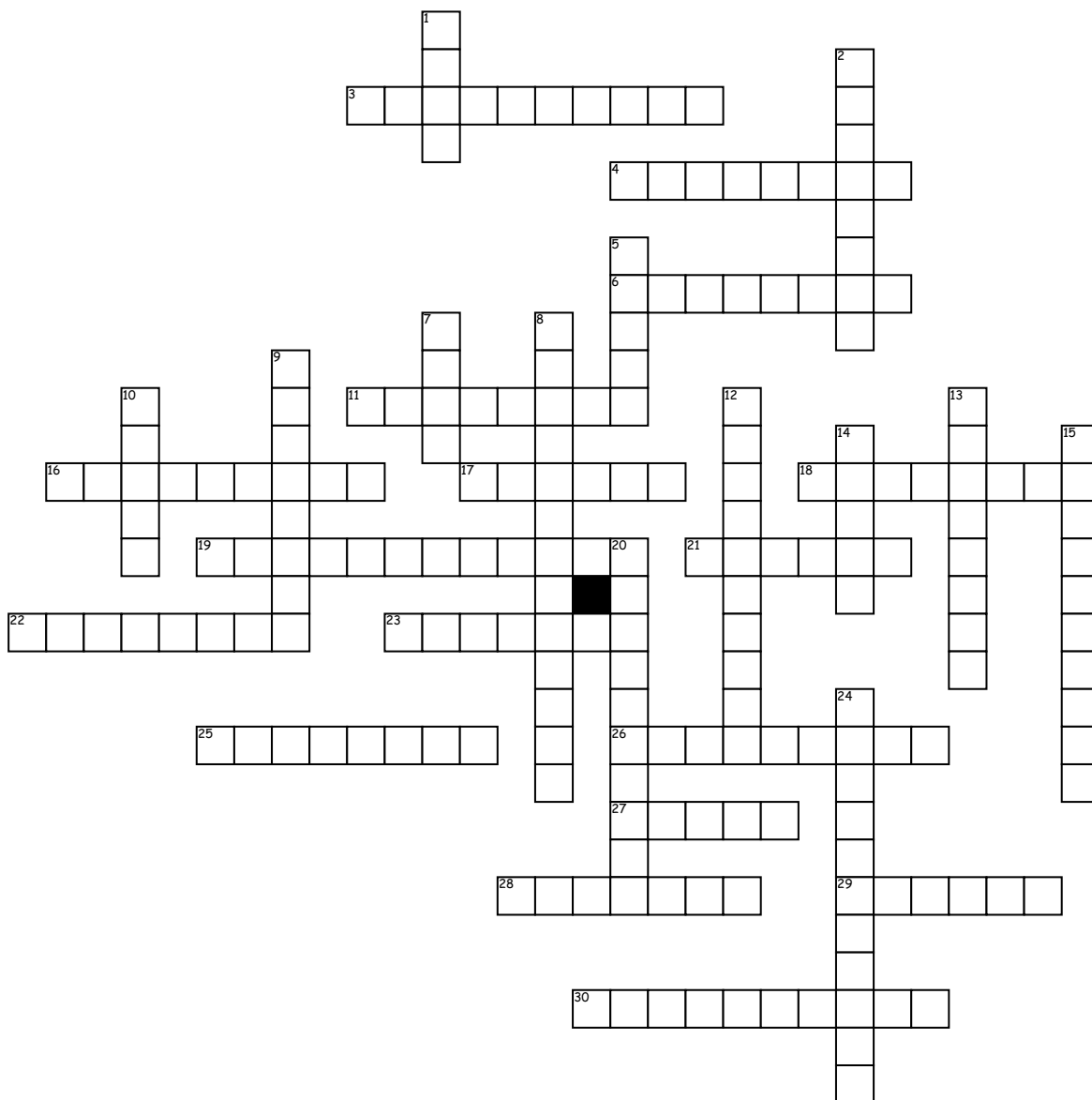# Calculus Crossword Puzzle

Across

3. rate of change of a funtion

4. limits can approach any value including positive or negative

6. rule used when top and bottom equal zero

11. Highest or lowest point on the graph; _____max/min

16. theorem stating if f(x) is defined, continuous, and differentiable on interval [a,b], then there is a c such that a<c<b

17. derivative of sin(x)

18. integral of velocity

19. the derivative of velocity

21. method of finding volume by subtracting the volume of the outer solid minus the value of the inner solid

22. _____ rule to differentiate a function composed of a function divided by another function

23. _____ rule to differentiate a function that contains multiplication of 2 other functions

25. the derivative of position

26. A line or curve that a function approaches without ever reaching

27. A value that a function approaches as an input approaches some value

28. a line that touches a curve at a point without crossing it

29. can be found using disk/ washer methods

30. a curve that is uninterrupted

Down

1. derivative of a constant

2. point or points where the derivative equals zero

5. How fast a function is increasing or decreasing

7. similar method as the washer method

8. a form of integration using the chain rule in reverse

9. _____ differentiation by separating variables

10. _____ rule used to differentiate composite functions

12. Estimate of the area of a function using rectangles

13. It expresses the area under a curve

14. d/dx (x^n) = nx^(n-1) is the _____ rule

15. Point of _____; curve changes concavity

20. if a variable is raised to another variable, take the _____ _____ of both sides

24. if f"(x) < 0 on a set interval the function is _____ on that interval