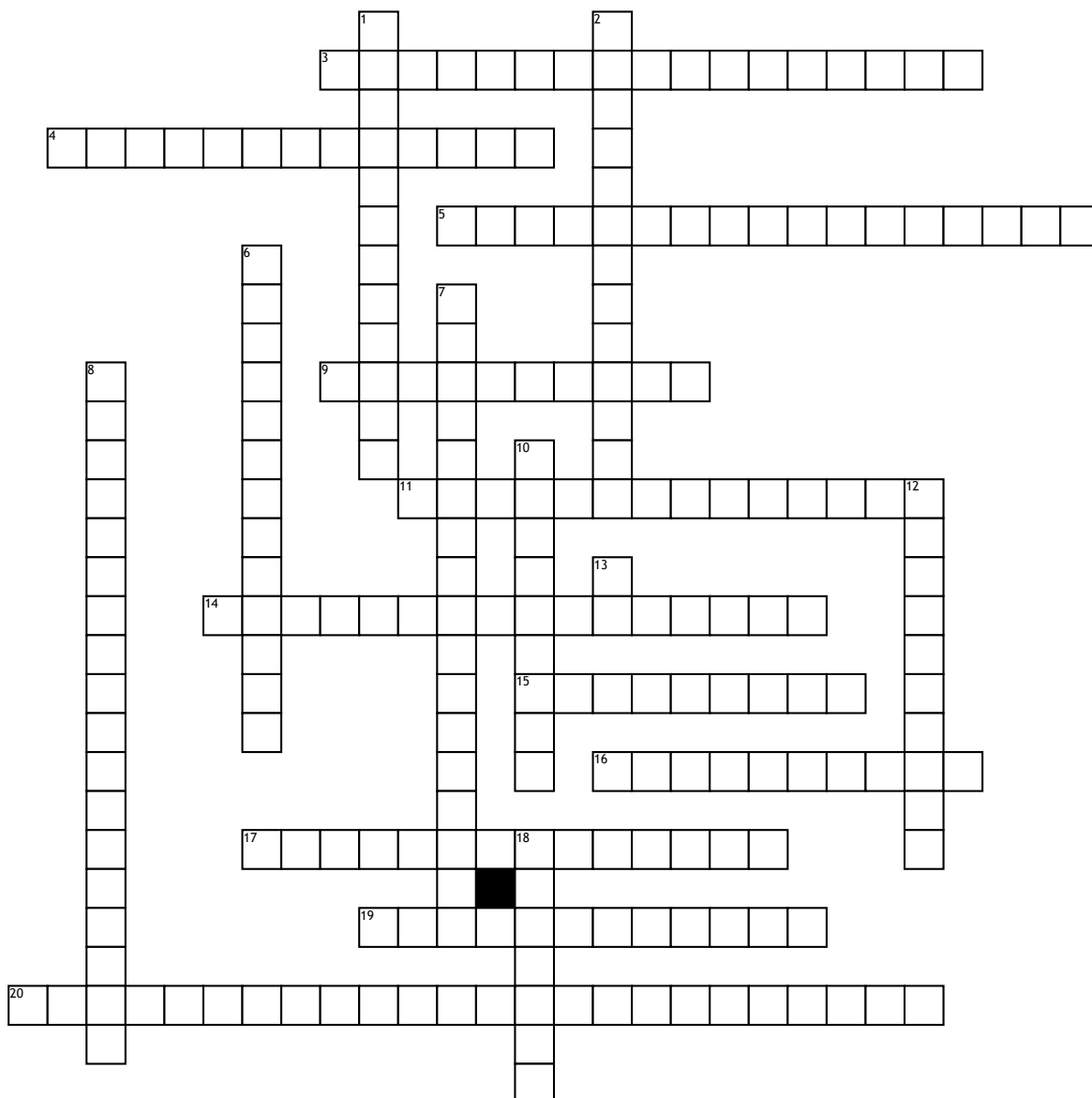


# Calculus Crossword



## Across

3. \_\_\_\_\_ implies continuity BUT continuity DOES NOT imply \_\_\_\_\_
4. Points where  $f'(x) = 0$  or  $f'(x)$  = undefined
5. Usually occurs in a piecewise function
9. Notations include:
11. Represents population growth that starts off exponentially but eventually levels off at its carrying capacity
14. Represented by the "L" in this equation:  $dP/dt = kP(1-PL)$
15. Could be approximated using the distance formula

16. These conditions must be met:

17. Used after a limit is evaluated and results in an indeterminate form  $(00, \pm\pm)$
19. This type of discontinuity includes vertical asymptotes and jump discontinuities
20. Used to prove that  $f(x) = 3x^2 - 3x + 1 = 0$  has at least 1 solution on the interval  $[0, 1]$

## Down

1. Change in position of a particle over  $[t_1, t_2]$
2. If \_\_\_\_\_ are different, the 2-sided limit does not exist.

6. Area under the curve from  $t=a$  to  $t=b$

7. Points where  $f(x)$  changes concavity
8. Helpful for integrands involving products of algebraic and transcendental functions
10. Used when the limit equals a number 0 and therefore does not exist
12. A rational functions end behavior is determined by its \_\_\_\_\_ asymptote
13. Particle moves \_\_\_\_\_ when
18. \_\_\_\_\_ Rate of Change