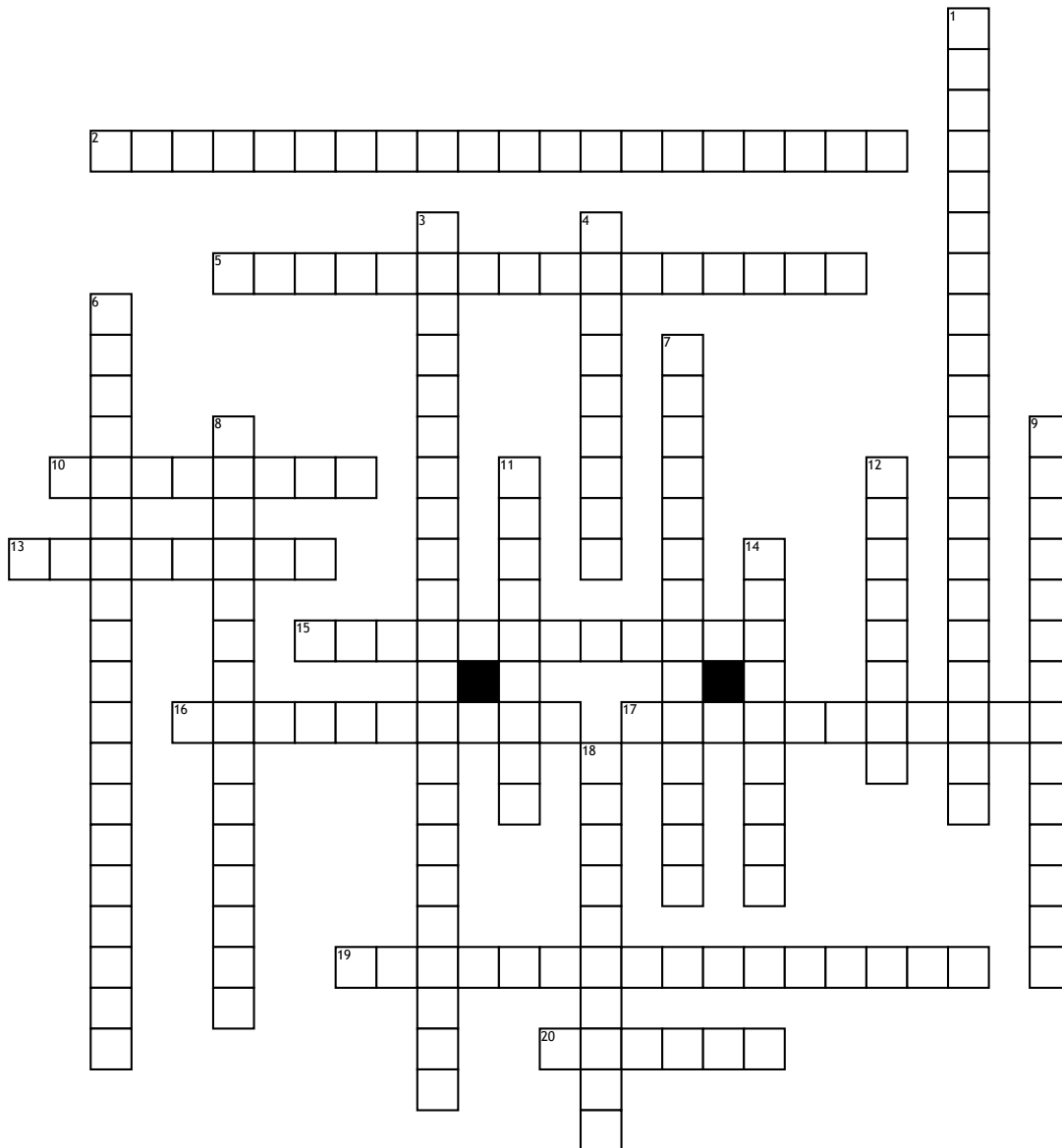


Math Final Project Crossword



Across

2. that branch of calculus that deals with derivative and applications of the derivative
 5. see key for picture
 10. see key for picture
 13. see key for picture
 15. the function that is the area bounded below by the x-axis, above by a function $y = f(x)$, on the left by the y-axis, and on the right by the vertical line $x = t$
 16. a line passing through two points of a given curve
 17. use this equation to find what? $y - k = f'(h)(x - h)$
 19. the branch of calculus that involves applications of the integral

20. the mathematical tool for studying the tendency of a function as its variable approaches some value

Down

1. an iterative procedure that makes assumptions about real-world problems to formulate the problem in mathematical terms. After the mathematical problem is solved, it is tested for accuracy in the real world, and revised for the next step in the iterative process
 3. if the limit exists, we say f is _____ of x
 4. area, volume, arc length, work, and hydrostatic force are a few of the many quantities that can be expressed through this
 6. $[f(x + h) - f(x)] / h$
 7. see key for picture

8. area of the region bounded by the graph of a function f and the x-axis and the vertical lines $x = a$ and $x = b$

9. see key for picture

11. the number of values within a class
 12. an instantaneous rate of change; a directed speed
 14. see key for picture
 18. a limit that is used initially to compute rates of change and slopes of tangent lines to curves