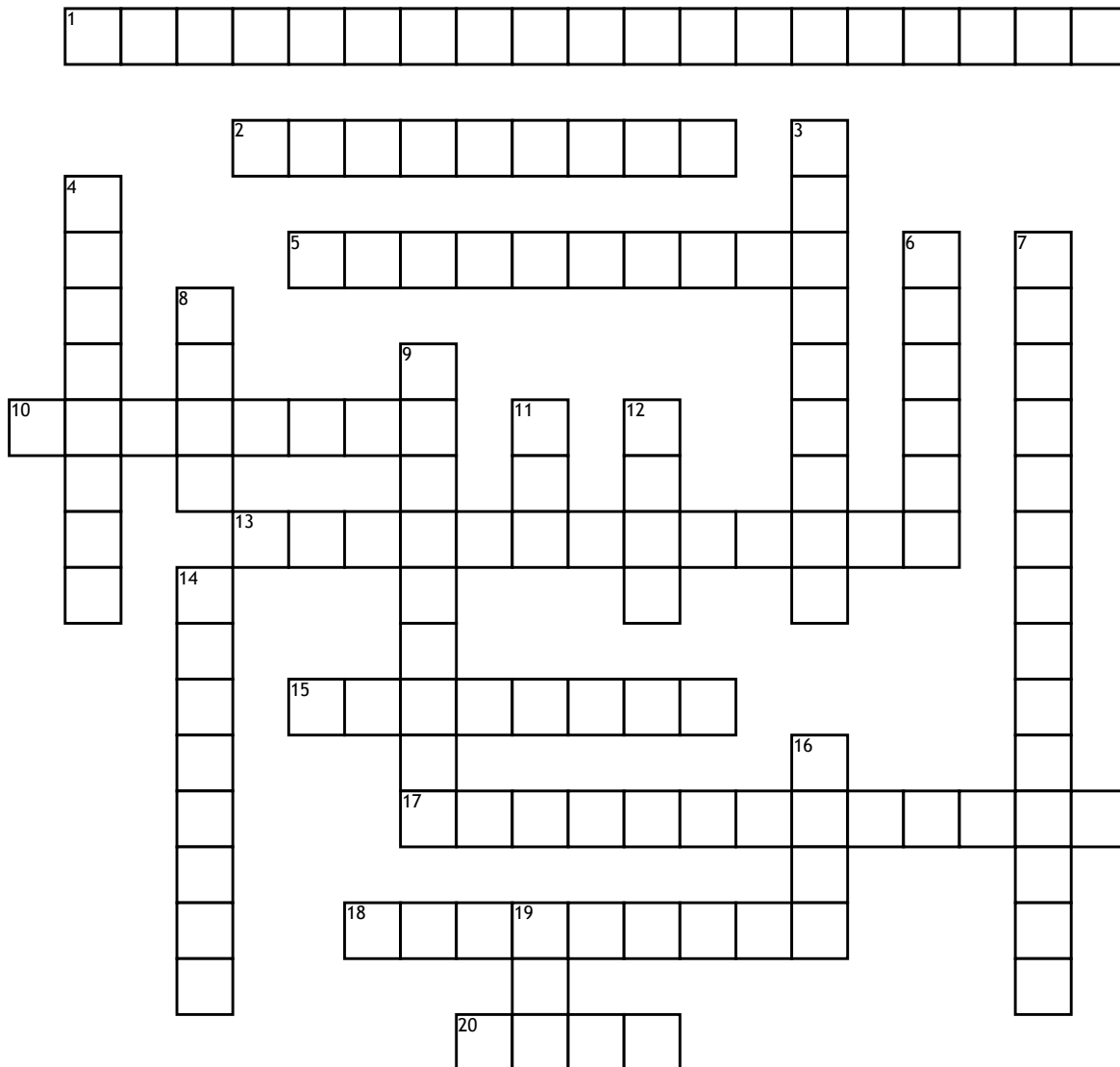


Limits



Across

1. On any continuous function graphed on a closed interval from a domain, we are guaranteed to have a maximum and a minimum value if the range of the function is not constant.
2. A line (or curve) that a function approaches without actually reaching the line as the domain either grows unbounded or approaches a limit.
5. $f(x)=|x|$ is _____ anywhere
10. the limit of the function $2x+4$ as x approaches five
13. Often a resultant fraction like $0/0$ is an Indeterminate form that requires more analysis to determine its true nature, depending on the functions involved.
15. the limit of a _____ is itself

17. When a function is literally not continuous because of a gap, a step, a hole, or any kind of "break" it is considered discontinuous.
 18. a point on the graph that is undefined or does not fit the rest of the graph. There is a gap at that location when you are looking at the graph.
 20. the limit of the function $x-1/2$ as x approaches 1
- ## Down
3. oscillation measures the failure of a limit to exist.
 4. these functions are continuous on their respective remains
 6. if the limit of the function x as x approaches c exists, then it is _____.
 7. the limit of $f(x) \cdot g(x)$ as x approaches c is LM

8. the limit of the function $\sin x$ as x approaches zero
9. $f(x)=5/x$ when x is zero
11. the limit of the function $2/x+1$ as x approaches -1
12. the size of the jump is the oscillation (assuming that the value at the point lies between these limits from the two sides)
14. it is either a minimum or a maximum value of a function
16. the limit of the function $x+1$ as x approaches 4
19. the limit of x as x approaches 1