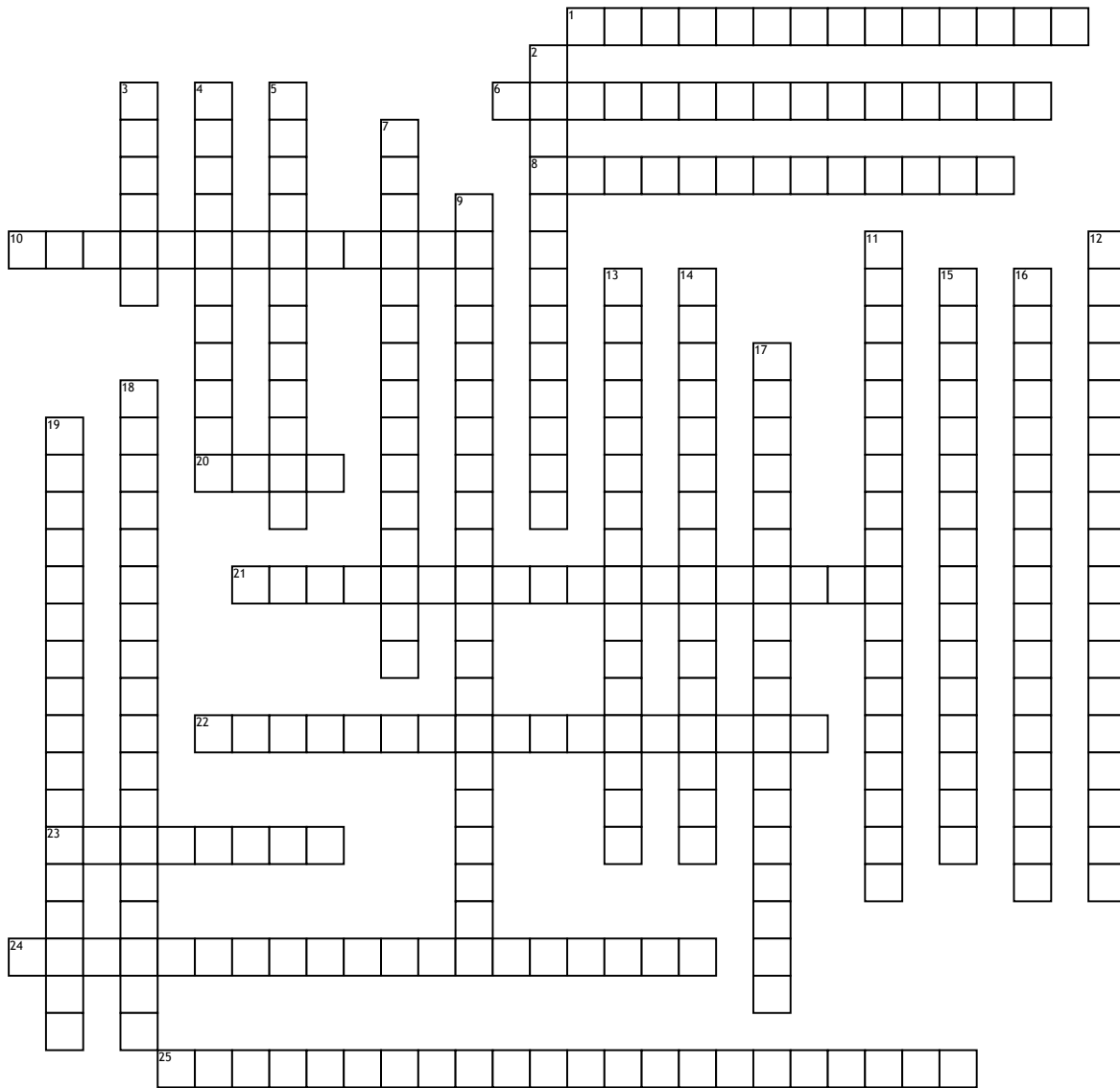


PRE-CAL CROSSWORD PUZZLE



Across

- 1. a domain that fits the situation (agreement)
- 6. a function that has $\lim (x \rightarrow a) f(x) = f(a)$
- 8. function is symmetric with respect to the x or y-axis $f(-x) = f(x)$ typically when $(x \wedge n, n \text{ even})$
- 10. domain of an algebraic expression
- 20. Solution of an equation
- 21. a function that on an interval, for any two points on that interval, a POSITIVE change in x results in a NEGATIVE change in f(x)
- 22. in limit notation $x \rightarrow a^-$ (x approaches a from left) $x \rightarrow a^+$ (x approaches a from right)
- 23. One part $(3x^2)$
- 24. the line $y = b$ of function $y = f(x)$ if $f(x)$ approaches a limit of b as x approaches $+\infty$ or $-\infty$ $\lim (x \rightarrow \pm\infty) f(x) = b$

- 25. graph which is continuous everywhere aside from a hole when x equals any real number, a. f(x) values may not be close to f(a), whether it exists or not

Down

- 2. a number b which is less than or equal to all numbers in the range of f
- 3. Mathematical - Algebraic (variables) Numerical (numbers) Graphical (visible representations of algebraic, numerical models)
- 4. when x values become larger and start following asymptotes, this determines which lines each graph follows to $\pm\infty$
- 5. property of a function that has a number b that is less than or equal to every number in the range of f
- 7. another way to say local extrema
- 9. graph has a gap at $x = a$ which cannot be removed through plugging in points
- 11. $(x+h)^2 + (y-k)^2 = r^2$

- 12. A product of real numbers is zero if a factor in the product is zero
- 13. a function that on an interval, for any two points in the interval, a POSITIVE change in x results in NO CHANGE in f(x)
- 14. $y = f(x)$
- 15. graph with no breaks f(x) values will be close to f(a) values where a is any real number
- 16. graph has a 'jump' at $x = a$ in the function values, making it impossible to plug with a single point (a, f(a)) no matter how f(a) is defined
- 17. a function that is not continuous at $x = a$
- 18. a function that on an interval, for any two points on that interval, a POSITIVE change in x results in a POSITIVE change in f(x)
- 19. the line $x = a$ of function $y = f(x)$ if $f(x)$ approaches a limit of $+\infty$ or $-\infty$ as x approaches a from either direction $\lim (x \rightarrow a^-) = \pm\infty$ or $\lim (x \rightarrow a^+) = \pm\infty$