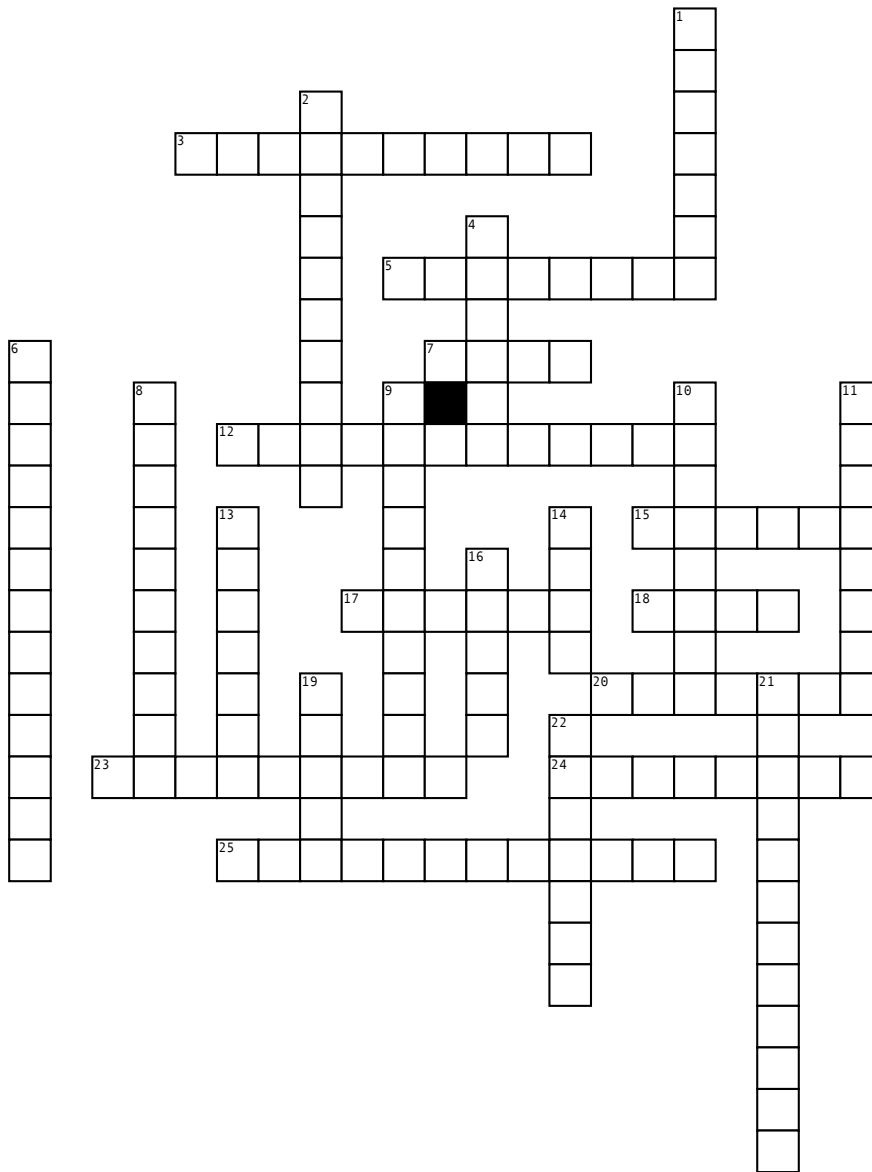


# Calculus BC Vocabulary Review



**Across**

- 3. if an alternating series converges and the general term converges with another test then the series converges
- 5.  $(uv' - vu')/v^2$  is the formula for what derivative rule
- 7.  $\int f(x)^2 dx$  is the formula for what method of finding volume
- 12. If  $f$  is continuous on a closed interval  $[a,b]$ , then  $f$  has both a max value and min. What theorem is this
- 15. A polynomial with infinite number of terms, including a general term is a \_\_\_\_\_ series
- 17.  $\int (R^2 - r^2) dx$  is the formula for what method of finding volume
- 18. derivative of  $\cos x$  (dont include negative)
- 20.  $f(b) - f(a) / (b - a)$  is the \_\_\_\_\_ rate of change formula

23. slope of vertical line

- 24. The process for finding  $dy/dx$  when  $y$  is implicitly defined is what type of differentiation
- 25. If  $f(1) = -4$  and  $f(6) = 9$ , then there must be a  $x$ -value between 1 and 6. This is the \_\_\_\_\_ value theorem

**Down**

- 1.  $uv' + vu'$  is the formula for what derivative rule
- 2. The limit of  $f(x)$  as  $x$  approaches  $a$  from either direction is equal to  $f(a)$ , as long as  $a$  is in the domain of  $f(x)$ .
- 4. derivative of  $\sin x$
- 6. if an alternating series converges and the general term diverges with another test then the series converges

- 8. When  $f'(x)$  changes from increasing to decreasing or decreasing to increasing,  $f(x)$  has a point of \_\_\_\_\_
- 9. limit as  $x$  approaches  $a$  of  $[f(x) - f(a)] / (x - a)$
- 10. If a particle is moving to the left/down velocity is \_\_\_\_\_
- 11. When  $f'(x)$  is +,  $f(x)$  will \_\_\_\_\_
- 13. When  $f'(x)$  is increasing,  $f(x)$  is \_\_\_\_\_ up
- 14. slope of horizontal line
- 16.  $f'(g(x)) \cdot g'(x)$  is the formula for what derivative rule
- 19.  $y_1 - y_2 = m(x_1 - x_2)$  is the \_\_\_\_\_ slope formula
- 21. The derivative of a velocity is \_\_\_\_\_
- 22. When  $f'(x)$  changes from negative to positive,  $f(x)$  has a \_\_\_\_\_