

1. What is integration by substitution?

- A. A method of integration that uses the substitution of a variable to simplify the integral
- B. A method of integration that uses the substitution of a function to simplify the integral
- C. A method of integration that uses the substitution of a constant to simplify the integral

2. Why is integration by substitution useful?

- A. It can be used to find the area under a curve
- B. It can be used to find the volume of a solid
- C. It can be used to find the arc length of a curve

3. How do you choose the substitution variable?

- A. Choose a variable that will make the integral easier to solve
- B. Choose a variable that will make the derivative easier to solve
- C. Choose a variable that will make the equation easier to solve

4. What is the first step of integration by substitution?

- A. Find the derivative of the function
- B. Substitute the chosen variable into the integral
- C. Simplify the integral

5. What is the second step of integration by substitution?

- A. Find the derivative of the function
- B. Substitute the chosen variable into the integral
- C. Simplify the integral

6. What is the third step of integration by substitution?

- A. Find the derivative of the function
- B. Substitute the chosen variable into the integral
- C. Simplify the integral

7. What is the fourth step of integration by substitution?

- A. Find the derivative of the function
- B. Substitute the chosen variable into the integral
- C. Simplify the integral

8. What is the fifth step of integration by substitution?

- A. Find the derivative of the function
- B. Substitute the chosen variable into the integral
- C. Simplify the integral

9. What is the sixth step of integration by substitution?

- A. Find the derivative of the function
- B. Substitute the chosen variable into the integral
- C. Simplify the integral

10. What is the seventh step of integration by substitution?

- A. Find the derivative of the function
- B. Substitute the chosen variable into the integral
- C. Simplify the integral

11. What is the eighth step of integration by substitution?

- A. Find the derivative of the function
- B. Substitute the chosen variable into the integral
- C. Simplify the integral

12. What is the ninth step of integration by substitution?

- A. Find the derivative of the function
- B. Substitute the chosen variable into the integral
- C. Simplify the integral

13. What is the tenth step of integration by substitution?

- A. Find the derivative of the function
- B. Substitute the chosen variable into the integral
- C. Simplify the integral

14. What is the final step of integration by substitution?

- A. Find the derivative of the function
- B. Substitute the chosen variable into the integral
- C. Simplify the integral

15. What is the answer to the integral?

- A. The answer is the derivative of the function
- B. The answer is the integral of the function
- C. The answer is the substitution of the variable