MATH 1552 Integral Calculus: The Fundamental Theorem of Calculus

1. What is the Fundamental Theorem of Calculus?

A. It is a theorem that proves the existence of the integral.
B. It is a theorem that proves the uniqueness of the integral.
C. It is a theorem that relates the derivative of a function to the function's integral.
D. It is a theorem that relates the integral of a function to the function's derivative.

2. What is the main idea of the Fundamental Theorem of Calculus?

A. It proves the existence of the integral.
B. It proves the uniqueness of the integral.
C. It relates the derivative of a function to the function's integral.
D. It relates the integral of a function to the function's derivative.

3. Which of the following is NOT true about the Fundamental Theorem of Calculus?

A. It is a theorem that proves the existence of the integral.
B. It is a theorem that proves the uniqueness of the integral.
C. It is a theorem that relates the derivative of a function to the function's integral.
D. It is a theorem that relates the integral of a function to the function's derivative.

4. What does the Fundamental Theorem of Calculus allow us to do?

A. It allows us to find the derivative of a function from its integral.
B. It allows us to find the integral of a function from its derivative.
C. It allows us to find the derivative of an inverse function.
D. It allows us to find the integral of an inverse function.

5. How do we use the Fundamental Theorem of Calculus in practice?

A. We use it to find the derivative of a function from its integral.
B. We use it to find the integral of a function from its derivative.
C. We use it to find the derivative of an inverse function.
D. We use it to find the integral of an inverse function.

Answer Key: 1-C, 2-D, 3-A, 4-B, 5-B