

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## First Fundamental Theorem of Calculus

Evaluate each definite integral. Round to the nearest ten-thousandth.

1) 
$$\int_1^2 (-x^5 + 10x^4 - 25x^3) dx$$

2) 
$$\int_7^8 \left( \frac{-3}{(x-6)^2} \right) dx$$

3) 
$$\int_0^3 (-x^4 + 9x^3 - 18x^2) dx$$

4) 
$$\int_2^4 e^{-2x+2} dx$$

5) 
$$\int_{-1}^1 (-x^3 + 15x^2 - 71x + 105) dx$$

6) 
$$\int_0^2 \left( \frac{-3}{(x+1)^2} \right) dx$$

7) 
$$\int_{-1}^0 e^{-4x} dx$$

8) 
$$\int_1^3 \left( \frac{5x+10}{x^3} \right) dx$$



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## First Fundamental Theorem of Calculus

Evaluate each definite integral. Round to the nearest ten-thousandth.

9)  $\int_6^8 e^{3x-15} dx$

10)  $\int_{-1}^3 \cos(-2x + 12) dx$

11)  $\int_4^5 \sin(3x - 21) dx$

12)  $\int_{-3}^{-2} (-x^5 + 13x^4 - 48x^3 + 36x^2) dx$

13)  $\int_{-2}^0 (x^4 - 2x^3) dx$

14)  $\int_5^9 (-x^3 + 17x^2 - 96x + 180) dx$

15)  $\int_3^6 \sin(-4x + 12) dx$

16)  $\int_2^6 (x^3 - 17x^2 + 96x - 180) dx$



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## First Fundamental Theorem of Calculus

Evaluate each definite integral. Round to the nearest ten-thousandth.

1) 
$$\int_1^2 (-x^5 + 10x^4 - 25x^3) dx$$

-42.25

2) 
$$\int_7^8 \left( \frac{-3}{(x-6)^2} \right) dx$$

-1.5

3) 
$$\int_0^3 (-x^4 + 9x^3 - 18x^2) dx$$

-28.35

4) 
$$\int_2^4 e^{-2x+2} dx$$

0.0664

5) 
$$\int_{-1}^1 (-x^3 + 15x^2 - 71x + 105) dx$$

220

6) 
$$\int_0^2 \left( \frac{-3}{(x+1)^2} \right) dx$$

-2

7) 
$$\int_{-1}^0 e^{-4x} dx$$

13.3995

8) 
$$\int_1^3 \left( \frac{5x+10}{x^3} \right) dx$$

7.7778



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Evaluate each definite integral. Round to the nearest ten-thousandth.

9)  $\int_6^8 e^{3x-15} dx$

2694.3328

10)  $\int_{-1}^3 \cos(-2x + 12) dx$

0.635

11)  $\int_4^5 \sin(3x - 21) dx$

-0.6238

12)  $\int_{-3}^{-2} (-x^5 + 13x^4 - 48x^3 + 36x^2) dx$

1667.4333

13)  $\int_{-2}^0 (x^4 - 2x^3) dx$

14.4

14)  $\int_5^9 (-x^3 + 17x^2 - 96x + 180) dx$

-29.3333

15)  $\int_3^6 \sin(-4x + 12) dx$

-0.039

16)  $\int_2^6 (x^3 - 17x^2 + 96x - 180) dx$

-42.6667

