

Name : _____

Score : _____

Teacher : _____

Date : _____

First Fundamental Theorem of Calculus

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

1)
$$\int_6^8 e^{-2x+14} dx$$

2)
$$\int_0^1 (-x^3 + 5x^2 - 7x + 3) dx$$

3)
$$\int_6^8 \left(\frac{-20 - x}{(x - 4)^3} \right) dx$$

4)
$$\int_0^3 (-x^5 + 8x^4 - 17x^3 + 10x^2) dx$$

5)
$$\int_1^3 \sin(-2x + 2) dx$$

6)
$$\int_{-3}^1 (x^4 - 4x^3 + 3x^2) dx$$

7)
$$\int_{-2}^0 (x^3 - 5x^2 + 8x - 4) dx$$

8)
$$\int_{-1}^0 (x^3 - 9x^2 + 26x - 24) dx$$



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First Fundamental Theorem of Calculus

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

$$9) \int_{-4}^{-3} \sin(4x - 12) \, dx$$

$$10) \int_9^{10} \left(\frac{-3}{(x-6)^2} \right) \, dx$$

$$11) \int_3^6 (-x^4 + 9x^3 - 18x^2) \, dx$$

$$12) \int_5^9 \cos(2x - 2) \, dx$$

$$13) \int_{-3}^{-1} (x^4 - 9x^3 + 20x^2) \, dx$$

$$14) \int_4^5 e^{-x+5} \, dx$$

$$15) \int_{-5}^{-4} (-x^5 + 6x^4) \, dx$$

$$16) \int_4^7 (x^5 - 10x^4 + 29x^3 - 20x^2) \, dx$$



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First Fundamental Theorem of Calculus

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

1) $\int_6^8 e^{-2x+14} dx$

3.6269

2) $\int_0^1 (-x^3 + 5x^2 - 7x + 3) dx$

0.9167

3) $\int_6^8 \left(\frac{-20 - x}{(x - 4)^3} \right) dx$

-2.5

4) $\int_0^3 (-x^5 + 8x^4 - 17x^3 + 10x^2) dx$

13.05

5) $\int_1^3 \sin(-2x + 2) dx$

-0.8268

6) $\int_{-3}^1 (x^4 - 4x^3 + 3x^2) dx$

156.8

7) $\int_{-2}^0 (x^3 - 5x^2 + 8x - 4) dx$

-41.3333

8) $\int_{-1}^0 (x^3 - 9x^2 + 26x - 24) dx$

-40.25



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First Fundamental Theorem of Calculus

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

$$9) \int_{-4}^{-3} \sin(4x - 12) dx$$

-0.3467

$$10) \int_9^{10} \left(\frac{-3}{(x-6)^2} \right) dx$$

-0.25

$$11) \int_3^6 (-x^4 + 9x^3 - 18x^2) dx$$

93.15

$$12) \int_5^9 \cos(2x - 2) dx$$

-0.6386

$$13) \int_{-3}^{-1} (x^4 - 9x^3 + 20x^2) dx$$

401.7333

$$14) \int_4^5 e^{-x+5} dx$$

1.7183

$$15) \int_{-5}^{-4} (-x^5 + 6x^4) dx$$

4442.7

$$16) \int_4^7 (x^5 - 10x^4 + 29x^3 - 20x^2) dx$$

1050.75

