Name : _____ Score : _____

Teacher : _____ Date : _____

First Fundamental Theorem of Calculus

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

1) $\int_{3}^{5} e^{-x+3}\,dx$

2) $\int_{4}^{6} \cos(3x - 9)\,dx$

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

4) $\int_{2}^{3} e^{4x-8}\,dx$

5) $\int_{5}^{7} e^{-3x+18}\,dx$

6) $\int_{2}^{4} (x^5 - 8x^4 + 15x^3)\,dx$

7) $\int_{-4}^{-1} (-x^3 + 11x^2 - 28x)\,dx$

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

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First Fundamental Theorem of Calculus

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

9) $\int_{-5}^{-2} \cos(4x - 28)\,dx$

10) $\int_{5}^{6} (x^4 - 8x^3 + 15x^2)\,dx$

11) $\int_{-1}^{0} \cos(-x + 5)\,dx$

12) $\int_{-2}^{-1} (-x^3 + 10x^2 - 27x + 18)\,dx$

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

14) $\int_{-1}^{2} \left(\frac{x(x + 8)}{6(x + 4)^2} \right) dx$

15) $\int_{-3}^{-2} (-x^5 + 10x^4 - 25x^3)\,dx$

16) $\int_{3}^{4} \left(\frac{5x + 10}{x^3} \right) dx$

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First Fundamental Theorem of Calculus

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

1) $\int_{3}^{5} e^{-x+3}\,dx$

0.8647

2) $\int_{4}^{6} \cos(3x - 9)\,dx$

0.0903

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

16.65

4) $\int_{2}^{3} e^{4x-8}\,dx$

13.3995

5) $\int_{5}^{7} e^{-3x+18}\,dx$

6.6786

6) $\int_{2}^{4} (x^5 - 8x^4 + 15x^3)\,dx$

-15.2

7) $\int_{-4}^{-1} (-x^3 + 11x^2 - 28x)\,dx$

504.75

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

-0.25

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First Fundamental Theorem of Calculus

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

9) $\int_{-5}^{-2} \cos(4x - 28)\,dx$

0.0559

10) $\int_{5}^{6} (x^4 - 8x^3 + 15x^2)\,dx$

43.2

11) $\int_{-1}^{0} \cos(-x + 5)\,dx$

0.6795

12) $\int_{-2}^{-1} (-x^3 + 10x^2 - 27x + 18)\,dx$

85.5833

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

48.2667

14) $\int_{-1}^{2} \left(\frac{x(x + 8)}{6(x + 4)^2} \right) dx$

0.0556

15) $\int_{-3}^{-2} (-x^5 + 10x^4 - 25x^3)\,dx$

939.0833

16) $\int_{3}^{4} \left(\frac{5x + 10}{x^3} \right) dx$

0.6597