CENGAGE | WEBASSIGN

Capítulo 7 Técnicas de Integracion (Homework)

INSTRUCTOR
Christiaan Ketelaar
Universidad Francisco Marroquin

Current Score

QUESTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
POINTS	1/0	1/0	1/0	1/0	1/0	1/0	1/0	1/0	2/0	2/0	1/0	1/0	1/0	1/0	1/0	1/0	1/0	1/0	1/

TOTAL SCORE

33/0	0.0%

Due Date

DECEMBER 21
11:59 PM CST

Request Extension

Assignment Submission & Scoring

Assignment Submission

For this assignment, you submit answers by question parts. The number of submissions remaining for each question part only changes if you submit or change the answer.

Assignment Scoring

Your last submission is used for your score.

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1. **1/0 points** **Previous Answers** **SCalcET8 7.1.003.MI.** My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int 3x\cos(4x)\,dx$$

$3(14x\sin(4x)+116\cos(4x))+C$

2. 1/0 points Previous Answers SCalcET8 7.1.006. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int (x - 2)\sin(\pi x)\, dx$$

$-x\pi\cos(\pi x)+1\pi 2\sin(\pi x)+2\pi\cos(\pi x)+C$

3. 1/0 points Previous Answers SCalcET8 7.1.009. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int \cos^{-1}(x)\, dx$$

$\cos-1(x)\cdot x-\sqrt{1-x2}+C$

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4. 1/0 points Previous Answers SCalcET8 7.1.010. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int \ln(\sqrt{x})\, dx$$

$ln(\sqrt{x})\cdot x-12x+C$

5. 1/0 points Previous Answers SCalcET8 7.1.015. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int (\ln(x))^2\, dx$$

$ln2(x)x-2(ln(x)x-x)+C$

6. 1/0 points Previous Answers SCalcET8 7.1.018. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int e^{-\theta} \cos(6\theta)\, d\theta$$

637e−θ(sin(6θ)−16cos(6θ))+C

7. 1/0 points Previous Answers SCalcET8 7.1.019. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int 9z^3 e^z\, dz$$

9z3ez−27(z2ez−2(zez−ez))+C

8. 1/0 points Previous Answers SCalcET8 7.1.024. My Notes Ask Your Teacher

Evaluate the integral.

$$\int_0^1 (x^2 + 1)e^{-x}\,dx$$

$3-6e-1$

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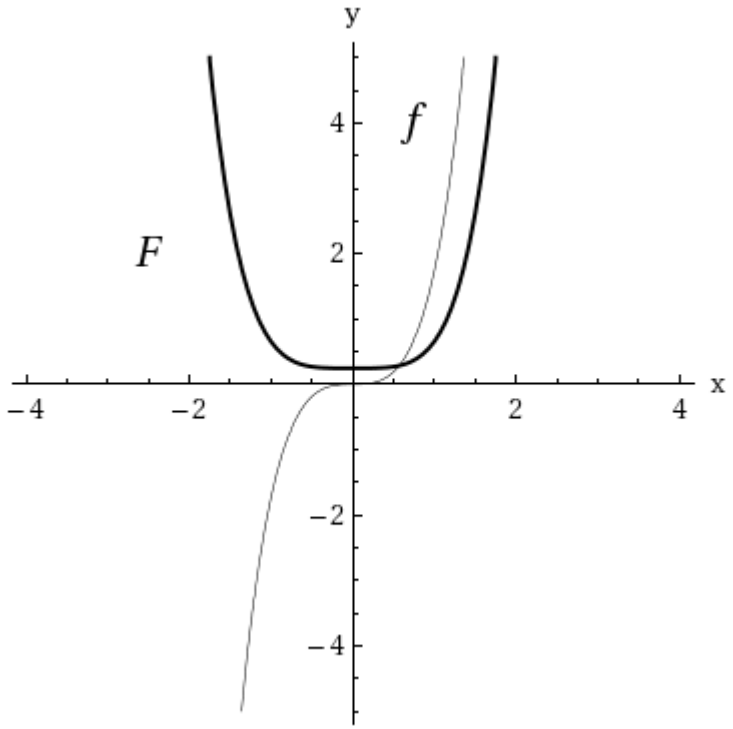
9. 2/0 points Previous Answers SCalcET8 7.1.045. My Notes Ask Your Teacher

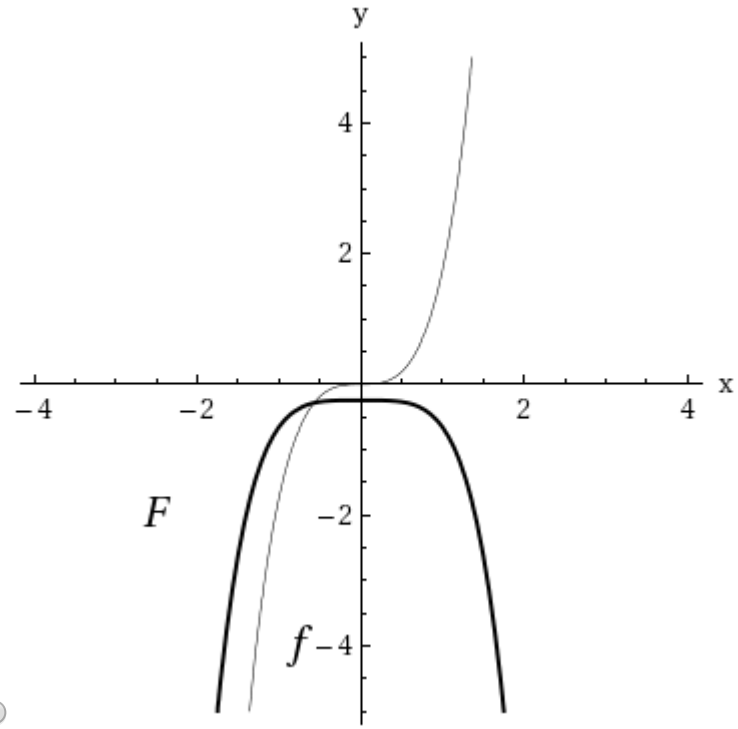
Evaluate the indefinite integral. (Use C for the constant of integration.)

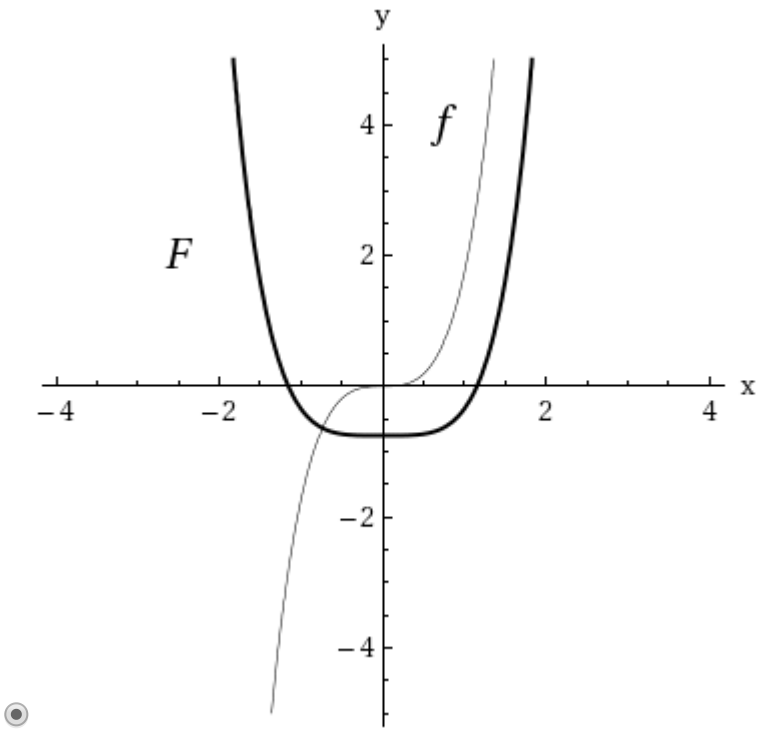
$$\int x^3\sqrt{2 + x^2}\, dx$$

(x2+2)(32)(3x2−4)15+C

Illustrate, and check that your answer is reasonable, by graphing both the function f and its antiderivative F (take $C = 0$).



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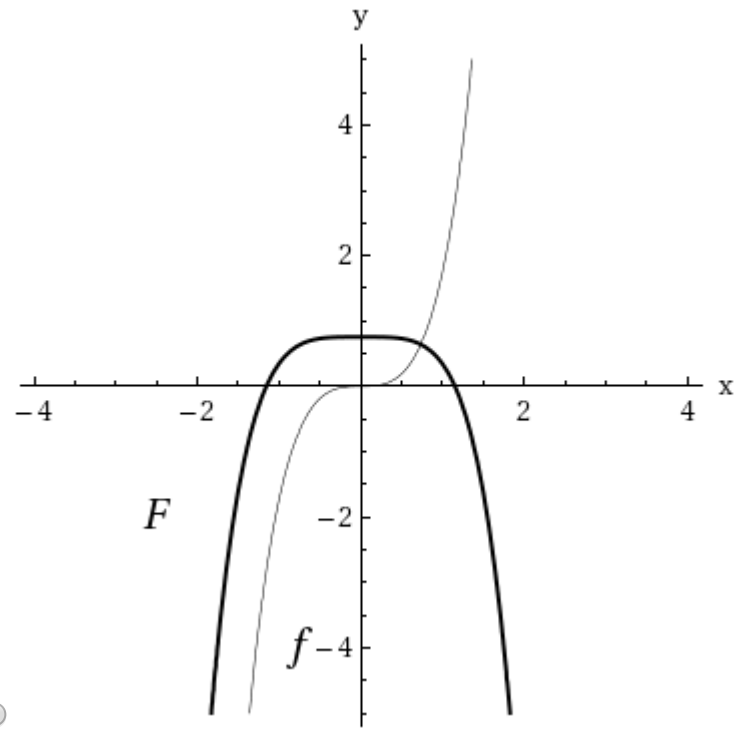
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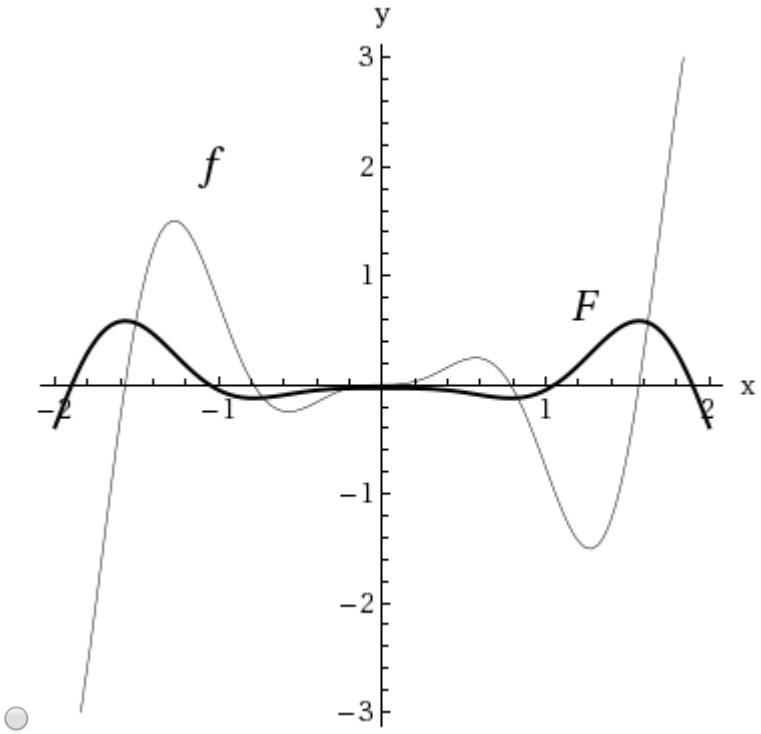
10. 2/0 points Previous Answers SCalcET8 7.1.046. My Notes Ask Your Teacher

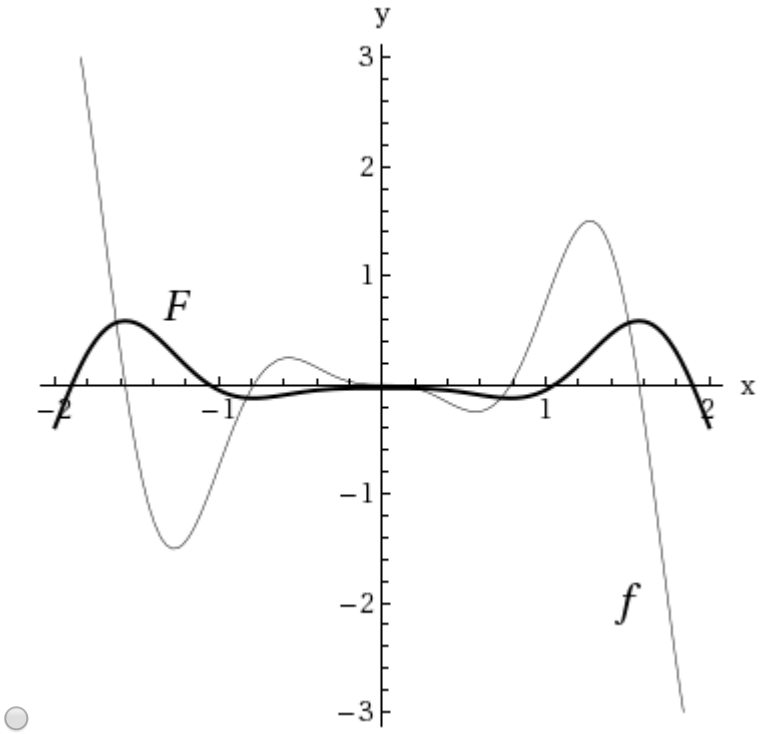
Evaluate the indefinite integral. (Use C for the constant of integration.)

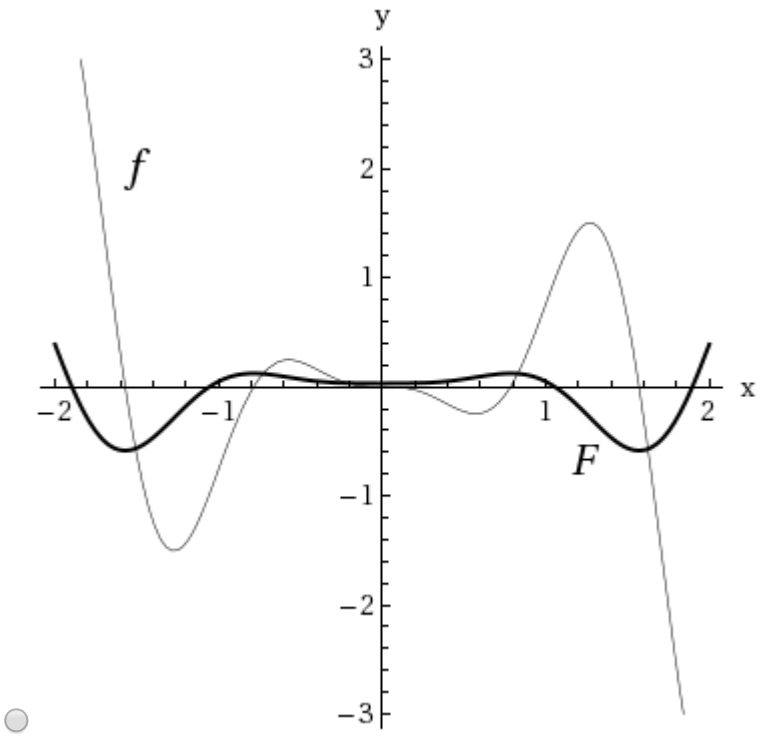
$$\int x^2 \sin(4x)\, dx$$

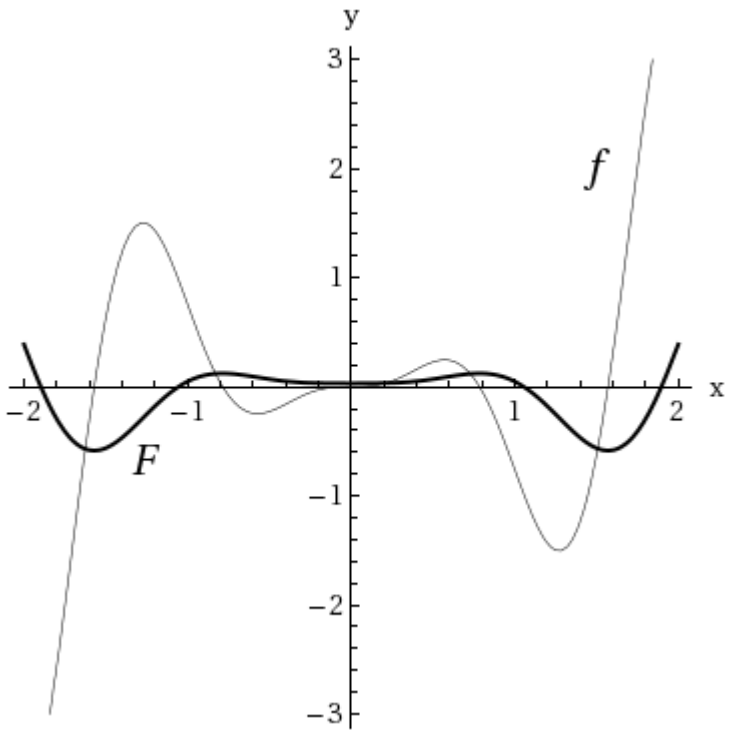
$-x2\cos(4x)\cdot 14+12(x4\sin(4x)+116\cos(4x))+C$

Illustrate, and check that your answer is reasonable, by graphing both the function f and its antiderivative F (take $C = 0$).









11. 1/0 points Previous Answers SCalcET8 7.2.001.MI. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int 2 \sin^2(x) \cos^3(x)\, dx$$

$23sin3(x)-25sin5(x)+C$

12. 1/0 points Previous Answers SCalcET8 7.2.010. My Notes Ask Your Teacher

Evaluate the integral.

$$\int_0^{\pi} 5 \sin^2(t) \cos^4(t)\, dt$$

5π16

13. 1/0 points Previous Answers SCalcET8 7.2.016. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int \tan^2(x) \cos^3(x)\, dx$$

$13\sin 3(x)+C$

14. 1/0 points Previous Answers SCalcET8 7.2.021. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int 4 \tan(x) \sec^3(x)\, dx$$

$43sec3(x)+C$

15. 1/0 points Previous Answers SCalcET8 7.2.024. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int 7 \left(\tan^2(x) + \tan^4(x)\right) dx$$

$73tan3(x)+C$

16. 1/0 points Previous Answers SCalcET8 7.2.031. My Notes Ask Your Teacher

Evaluate the integral. (Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int 5\tan^5(x)\,dx$$

$5(14sec4(x)-sec2(x)+ln(|sec(x)|))+C$

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17. 1/0 points Previous Answers SCalcET8 7.2.033. My Notes Ask Your Teacher

Evaluate the integral. (Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int 8x\sec(x)\tan(x)\,dx$$

$8(xsec(x)-ln(|sec(x)+tan(x)|))+C$

18. 1/0 points Previous Answers SCalcET8 7.2.034. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int \frac{9\sin(\varphi)}{\cos^3(\varphi)}\,d\varphi$$

92tan2(φ)+C

19. 1/0 points Previous Answers SCalcET8 7.2.037. My Notes Ask Your Teacher

Evaluate the integral.

$$\int_{\pi/4}^{\pi/2} \cot^5(\phi)\csc^3(\phi)\,d\phi$$

22√2−8105

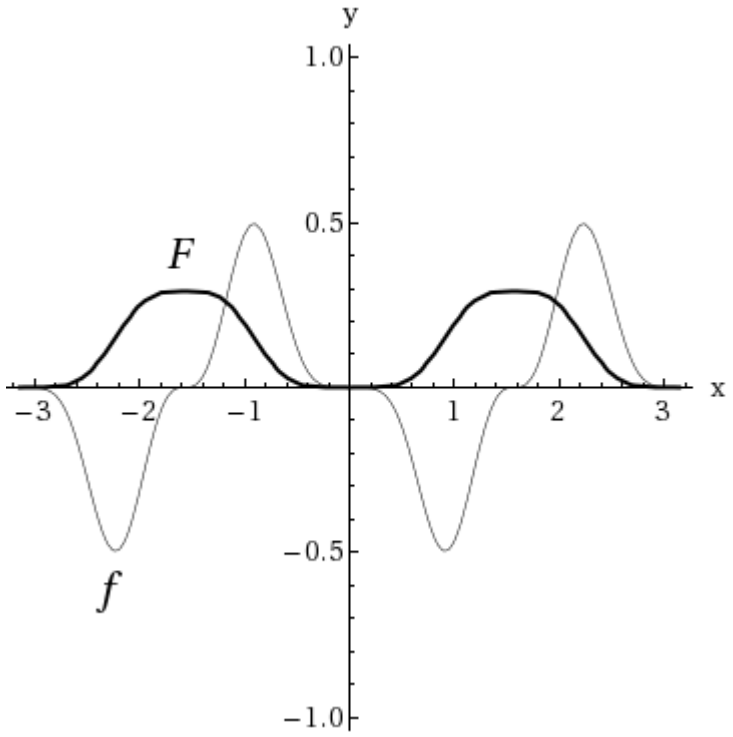
20. 2/0 points Previous Answers SCalcET8 7.2.052. My Notes Ask Your Teacher

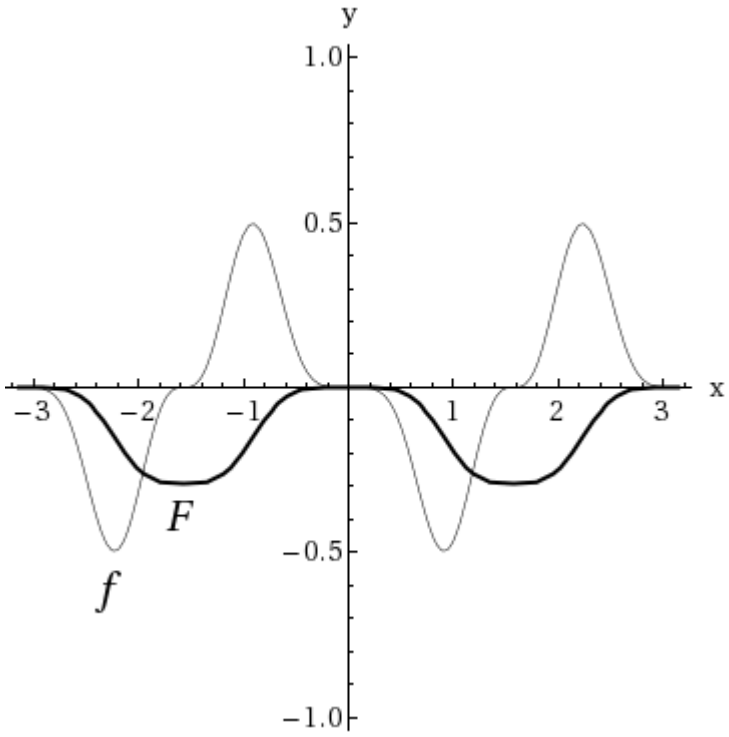
Evaluate the indefinite integral. (Use C for the constant of integration.)

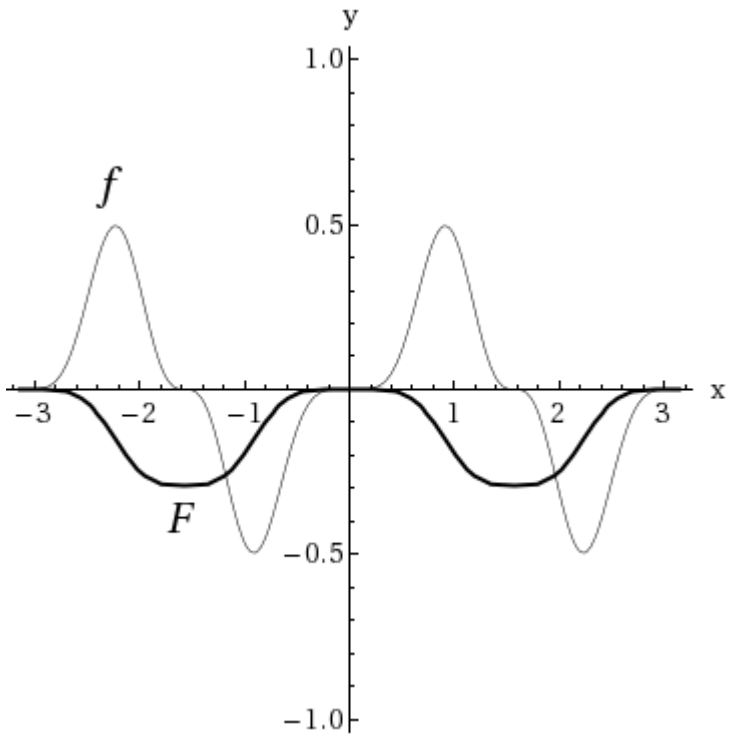
$$\int 7 \sin^5(x) \cos^3(x)\, dx$$

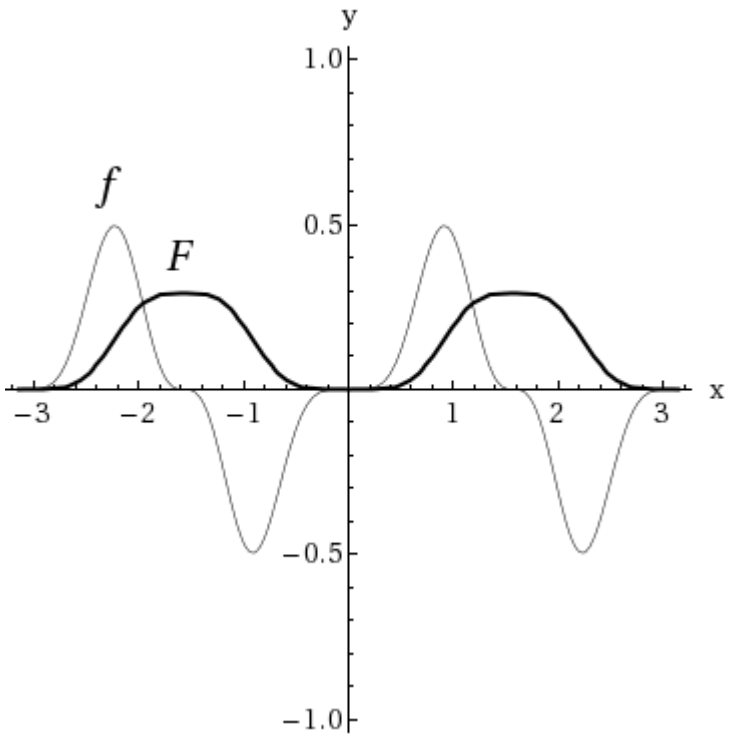
$7(16sin6(x)-18sin8(x))+C$

Illustrate, and check that your answer is reasonable, by graphing both the integrand f and its antiderivative F (taking $C = 0$).









21. 1/0 points Previous Answers SCalcET8 7.3.004. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int \frac{x^2}{\sqrt{25 - x^2}}\, dx$$

$-252(arccos(x5)+x\sqrt{25-x225})+C$

22. 1/0 points Previous Answers SCalcET8 7.3.007. My Notes Ask Your Teacher

Evaluate the integral.

$$4\int_0^a \frac{dx}{(a^2 + x^2)^{3/2}}, \quad a > 0$$

$2\sqrt{2}a2$

23. 1/0 points Previous Answers SCalcET8 7.3.012. My Notes Ask Your Teacher

Evaluate the integral.

$$\int_0^9 \frac{dt}{\sqrt{81 + t^2}}$$

$ln(|\sqrt{2}+1|)$

24. 1/0 points Previous Answers SCalcET8 7.3.013. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int \frac{\sqrt{x^2 - 25}}{x^3}\, dx$$

110(*arccos*(5*x*)−5√*x*2−25*x*2)+*C*

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25. 1/0 points Previous Answers SCalcET8 7.3.015. My Notes Ask Your Teacher

Evaluate the integral.

$$\int_0^a 7x^2 \sqrt{a^2 - x^2}\, dx$$

716π*a*4

26. 1/0 points Previous Answers SCalcET8 7.3.017. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int \frac{x}{\sqrt{x^2 - 5}}\, dx$$

$\sqrt{x2-5}+C$

27. 1/0 points Previous Answers SCalcET8 7.3.019. My Notes Ask Your Teacher

Evaluate the integral. (Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int \frac{\sqrt{64 + x^2}}{x}\, dx$$

$-4ln|18\sqrt{x2+64+1}|+4ln|18\sqrt{x2+64-1}|+\sqrt{64+x2+C}$

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28. 1/0 points Previous Answers SCalcET8 7.3.029. My Notes Ask Your Teacher

Evaluate the integral. (Use C for the constant of integration.)

$$\int 5x\sqrt{1-x^4}\,dx$$

54*arcsin*(*x*2)+58*sin*(2*arcsin*(*x*2))+*C*

29. 1/0 points Previous Answers SCalcET8 7.3.501.XP. My Notes Ask Your Teacher

Evaluate the integral.

$$2\int_0^1 x^3\sqrt{1-x^2}\,dx$$

415

30. 1/0 points Previous Answers SCalcET8 7.3.508.XP. My Notes Ask Your Teacher

Evaluate the integral. (Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int \frac{dt}{\sqrt{t^2 - 12t + 45}}$$

$ln(|13(t-6+\sqrt{t2-12t+45})|)+C$

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