---

1. **(1 point)** Library/ma123DB/set2/s7_2_17.pg

Evaluate the indefinite integral.

$$\int \cos^5 x \tan^3 x \, dx$$

Answer: _____ $+ C$

Correct Answers:

- -(cos(x))^(5-2)/(5-2)+(cos(x))^(5)/(5)

---

2. **(1 point)** Library/Union/setIntTrigonometric/an8_3_06.pg

Evaluate the indefinite integral.

$\int \tan^9(x)\sec^2(x)\, dx =$ _____ $+C.$

Solution: *(Instructor solution preview: show the student solution after due date.)*

SOLUTION

Let $u = \tan x$. Then $du = \sec^2 x\, dx$ and

$$\int \tan^9(x)\sec^2(x)\, du = \int u^9\, du = \frac{1}{10}u^{10} + C = \frac{1}{10}\tan^{10} x + C$$

Correct Answers:

- 1/10*[tan(x)]^10

---

3. **(1 point)** Library/Rochester/setIntegrals5Trig/S07.02.TrigIntegrals.PTP17.pg

Evaluate the indefinite integral.

$$\int \tan^2 x \, dx$$

Answer: _____ $+ C$

Correct Answers:

- tan(x) - x

---

4. **(1 point)** Library/UMN/calculusStewartCCC/s_5_3_48.pg

Find the general indefinite integral $\int \frac{\sin 2x}{\sin x}\, dx$.

Answer: _____

Correct Answers:

- 2*sin(x)+C

5. **(1 point)** Library/Union/setIntSubstitution/an6_3_03.pg

Evaluate the indefinite integral.

$\int \sec(10x)\tan(10x)\,dx =$ _____ $+C.$

Correct Answers:

- 1/10*sec(10*x)

---

6. **(1 point)** Library/UMN/calculusStewartET/s_7_2_2.pg

Evaluate

$$\int \sin^8 x \cos^3 x\, dx.$$

Answer: _____

Correct Answers:

- 0.111111*[sin(x)]^9-0.0909091*[sin(x)]^11+C

---

7. **(1 point)** Library/UCSB/Stewart5_7_2/Stewart5_7_2_20.pg

Evaluate the integral

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

Note: Use an upper-case "C" for the constant of integration.

_____

Correct Answers:

- 4*(-1/16*cos(4*x)-1/4*cos(2*x))+C+c

---

8. **(1 point)** Library/UCSB/Stewart5_7_2/Stewart5_7_2_21.pg

Evaluate the integral

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

Note: Use an upper-case "C" for the constant of integration.

_____

Correct Answers:

- 1/2*-3*sec(x)^2+C+c

---

9. **(1 point)** Library/UCSB/Stewart5_7_2/Stewart5_7_2_29.pg

Evaluate the integral

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

Note: Use an upper-case "C" for the constant of integration.

_____

Correct Answers:

- -3/3*sec(x)^3-(-3)*sec(x)+C+c

10. **(1 point)** Library/UCSB/Stewart5_7_2/Stewart5_7_2_41.pg

Evaluate the integral

$$\int 8\sin(5x)\sin(2x)\,dx$$

Note: Use an upper-case "C" for the constant of integration.

Correct Answers:

- 8/6*sin(3*x)-(8)/14*sin(7*x)+C+c

11. **(1 point)** Library/Indiana/Indiana_setIntegrals5Trig/ur_in_5_5.pg

Evaluate the indefinite integral.

$\int \sin(8x)\cos(9x)\,dx =$ _____ $+C$

Solution: *(Instructor solution preview: show the student solution after due date.)*

Solution:

We use the the identity $\sin A\cos B = \frac{1}{2}\left[\sin(A-B)+\sin(A+B)\right]$:

$$\int \sin(8x)\cos(9x)dx = \int \frac{1}{2}\left(\sin(8x-9x)+\sin(8x+9x)\right)dx$$

$$= \frac{1}{2}\int \sin(-1x)dx + \frac{1}{2}\int \sin(17x)dx$$

$$= \frac{\cos(-1x)}{-2} + \frac{\cos(17x)}{34} + C$$

Correct Answers:

- -0.5 * (cos((8+ 9)*x)/(8 + 9) + cos((8 - 9)*x)/(8 - 9))

12. **(1 point)** Library/UCSB/Stewart5_7_2/Stewart5_7_2_43.pg

Evaluate the integral

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

Note: Use an upper-case "C" for the constant of integration.

Correct Answers:

- -3/4*sin(2*x)+-3/24*sin(12*x)+C+c

13. **(1 point)** Library/Union/setIntByParts/mec_int1.pg

Evaluate the indefinite integral.

$\int x\sin^2(8x)\,dx =$ _____ $+C.$

Hint: Integrate by parts with $u = x$.

Correct Answers:

- 1/32*[8*x^2-x*sin(16*x)-[cos(16*x)]/16]

14. **(1 point)** Library/ma123DB/set2/s7_1_11.pg

Find the integral.

$\int e^{7x}\sin(6x)dx =$ _____

Correct Answers:

- 7/85*[e^(7*x)*sin(6*x)-6/7*e^(7*x)*cos(6*x)]+C

15. **(1 point)** Library/ma123DB/set3/s7_5_48.pg

Evaluate the indefinite integral.

$$\int x^2\arctan(4x)dx$$

Answer: _____ $+ C$

Correct Answers:

- x^3/3*atan(4*x)-x^2/(6*4)+1/(6*64)*ln(1+16*x^2)