

PRINTABLE VERSION

Quiz 4

You scored 0 out of 100

Question 1

You did not answer the question.

Calculate the integral:

$$\int (\sec(2x + 1))^2 dx$$

- a) $\frac{1}{2} \sec(2x + 1) + C$
- b) $\tan(2x + 1) + C$
- c) $-\frac{1}{2} \tan(2x + 1) + C$
- d) $\frac{1}{6} (\sec(2x + 1))^3 + C$
- e) $\frac{1}{2} \tan(2x + 1) + C$

Question 2

You did not answer the question.

Calculate the integral:

$$\int \frac{1}{2} \frac{\sec^2(x)}{\sqrt{\tan(x) + 1}} dx$$

- a) $4\sqrt{\tan(x) + 1} + C$
- b) $\sqrt{\tan(x) + 1} + C$
- c) $\frac{1}{4} \sec(x)^2 + C$

d) $\frac{1}{2} \sec(x) + C$

e) $\frac{1}{2} \sqrt{\tan(x) + 1} + C$

Question 3

You did not answer the question.

Calculate the integral:

$$\int \frac{4 (\arcsin(x))^5}{\sqrt{1-x^2}} dx$$

a) $\frac{1}{24} (\arcsin(x))^4 + C$

b) $\frac{2}{3} (\arcsin(x))^6 + C$

c) $\frac{1}{20} \sqrt{1-x^2} + C$

d) $\frac{2}{3} \sqrt{1-x^2} + C$

e) $(\arcsin(x))^4 + C$

Question 4

You did not answer the question.

Calculate the integral:

$$\int 3x \ln(x^6) dx$$

a) $\frac{1}{2} \ln(x^6) + \frac{9}{2} x^2 + C$

b) $\frac{3}{2} x^2 \ln(x^6) + C$

c) $-\frac{3}{2} x^2 \ln(x^6) + \frac{3}{2} x^2 + C$

d) $\frac{3}{2} x^2 \ln(x^6) - \frac{9}{2} x^2 + C$

e) $\frac{1}{6} \ln(x^6) - \frac{9}{2} x^2 + C$

Question 5

You did not answer the question.

Calculate the integral:

$$\int_0^5 x^2 e^{-4x} dx$$

a) $\frac{1}{64} - \frac{221}{64} e^{-20}$

b) $\frac{1}{32} - \frac{221}{32} e^{-20}$

c) $\frac{3}{64} - \frac{663}{64} e^{-20}$

d) $\frac{3}{32} - \frac{663}{32} e^{-20}$

e) $\frac{1}{16} - \frac{221}{16} e^{-20}$

Question 6

You did not answer the question.

Calculate the integral:

$$\int_0^{\frac{1}{2}} 6x \cos(\pi x) dx$$

a) $\frac{3}{2} \frac{-2 + \pi}{\pi^2}$

b) $\frac{3(-2 + \pi)}{\pi^2}$

c) $\frac{9}{2} \frac{-2 + \pi}{\pi^2}$

d) $\frac{9(-2 + \pi)}{\pi^2}$

e) $\frac{6(-2 + \pi)}{\pi^2}$

Question 7

You did not answer the question.

Calculate the integral:

$$\int 2 e^x \cos(x) dx$$

a) $e^x \sin(x) + e^x \cos(x) + C$

b) $3 e^x \cos(x) + 3 e^x \sin(x) + C$

c) $2 e^x \sin(x) + 2 e^x \cos(x) + C$

d) $\frac{1}{2} e^x \sin(x) + \frac{1}{2} e^x \cos(x) + C$

e) $\frac{3}{2} e^x \sin(x) + \frac{3}{2} e^x \cos(x) + C$

Question 8

You did not answer the question.

Calculate the integral:

$$\int_0^1 6 x \arctan(x^2) dx$$

a) $\frac{3}{4} \pi - \frac{3}{2} \ln(2)$

b) $\frac{9}{4} \pi - \frac{9}{2} \ln(2)$

c) $\frac{3}{2} \pi - 3 \ln(2)$

d) $\frac{3}{8} \pi - \frac{3}{4} \ln(2)$

e) $\frac{9}{8} \pi - \frac{9}{4} \ln(2)$

Question 9

You did not answer the question.

Calculate the integral:

$$\int 7x^2 \cosh(2x) dx$$

a) $\frac{7}{2} x^2 \sinh(2x) - \frac{7}{2} x \cosh(2x) + C$

b) $\frac{21}{4} x^2 \sinh(2x) - \frac{21}{4} x \cosh(2x) + \frac{21}{8} \sinh(2x) + C$

c) $7x^2 \sinh(2x) - 7x \cosh(2x) + \frac{7}{2} \sinh(2x) + C$

d) $\frac{7}{2} x^2 \sinh(2x) + \frac{7}{4} \sinh(2x) + C$

e) $\frac{7}{2} x^2 \sinh(2x) - \frac{7}{2} x \cosh(2x) + \frac{7}{4} \sinh(2x) + C$

Question 10

You did not answer the question.

Calculate the integral:

$$\int 11 \sin(\ln(x)) dx$$

a) $11x \sin(\ln(x)) - 11x \cos(\ln(x)) + C$

b) $\frac{11}{2} x \cos(\ln(x)) + \frac{11}{2} x \sin(\ln(x)) + C$

c) $\frac{33}{4} x \sin(\ln(x)) - \frac{33}{4} x \cos(\ln(x)) + C$

d) $-\frac{11}{2} \cos(\ln(x)) + C$

e) $\frac{11}{2} x \sin(\ln(x)) - \frac{11}{2} x \cos(\ln(x)) + C$

Question 11

You did not answer the question.

Calculate the given integral:

$$\int_0^{\frac{1}{20}\pi} 2 \sin^2(10x) dx$$

a) $\frac{3}{10} \pi$

b) $\frac{1}{10} \pi$

c) $\frac{1}{5} \pi$

d) $\frac{1}{20} \pi$

e) $\frac{2}{15} \pi$

Question 12

You did not answer the question.

Calculate the given integral:

$$\int (\cos(11x))^4 (\sin(11x))^3 dx$$

a) $\frac{1}{55} (\sin(11x))^5 + \frac{1}{77} (\sin(11x))^7 + C$

- b) $-\frac{1}{55} (\cos(11x))^5 + \frac{1}{77} (\cos(11x))^7 + C$
- c) $-\frac{1}{132} (\cos(11x))^5 + C$
- d) $\frac{1}{55} (\cos(11x))^5 - \frac{1}{77} (\cos(11x))^7 + C$
- e) $-\frac{1}{5} (\cos(11x))^5 + \frac{1}{7} (\cos(11x))^7 + C$

Question 13

You did not answer the question.

Calculate the given integral:

$$\int 2 \csc^2(5x) \, dx$$

- a) $-\frac{2}{5} \sin^2(5x) + C$
- b) $-2 \cot(5x) + C$
- c) $-\frac{2}{5} \sin(5x) \cos(5x) + C$
- d) $\frac{2}{5} \cot(5x) + C$
- e) $-\frac{2}{5} \cot(5x) + C$

Question 14

You did not answer the question.

Calculate the given integral:

$$\int 2 \tan^3(4x) \, dx$$

- a) $\frac{1}{8} \tan^4(4x) + C$

- b) $-\frac{1}{4} \tan^2(4x) - \frac{1}{2} \ln |\cos(4x)| + C$
- c) $\frac{1}{8} \tan^4(4x) + 8 \ln |\sin(4x)| + C$
- d) $\frac{1}{4} \tan^2(4x) + \frac{1}{2} \ln |\cos(4x)| + C$
- e) $\tan^2(4x) + 2 \ln |\cos(4x)| + C$

Question 15

You did not answer the question.

Calculate the given integral:

$$\int 5 \sin(8x) \cos(9x) dx$$

- a) $\frac{5}{34} \sin(8x) - \frac{5}{2} \sin(x) + C$
- b) $-\frac{5}{2} \cos(8x) + \frac{5}{2} \cos(x) + C$
- c) $-\frac{5}{2} \sin(17x) + \frac{5}{2} \cos(x) + C$
- d) $-\frac{5}{34} \cos(17x) + \frac{5}{2} \cos(x) + C$
- e) $-\frac{5}{34} \sin(8x) + \frac{5}{2} \sin(x) + C$

Question 16

You did not answer the question.

Calculate the given integral:

$$\int 4 (\tan(11x))^2 (\sec(11x))^2 dx$$

- a) $\frac{4}{3} (\tan(11x))^3 + C$

b) $\frac{4}{33} (\tan(11x))^3 + C$

c) $\frac{4}{33} (\tan(11x))^3 (\sec(11x))^2 + C$

d) $\frac{4}{33} (\sec(11x))^3 + C$

e) $\frac{4}{3} (\sec(11x))^3 + C$

Question 17

You did not answer the question.

Calculate the given integral:

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

a) $\frac{1}{6} (\tan(2x))^5 + \frac{1}{2} \tan(2x) + \frac{1}{2} x + C$

b) $\frac{1}{6} (\tan(2x))^3 - \frac{1}{2} \tan(2x) + x + C$

c) $\frac{1}{6} \tan(2x)^4 + \frac{1}{2} \tan(2x) + x + C$

d) $\frac{1}{6} (\tan(2x))^5 - \frac{1}{2} (\tan(2x))^3 + \frac{1}{2} x + C$

e) $\frac{1}{6} (\tan(2x))^3 - \frac{1}{2} \tan(2x) + \frac{1}{2} x + C$

Question 18

You did not answer the question.

Calculate the given integral:

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

a) $\frac{1}{12} \sin(6x) - \frac{1}{20} \sin(10x) + C$

b) $\frac{1}{12} \cos(8x) - \frac{1}{20} \cos(10x) + C$

c) $\frac{1}{12} \sin(6x) + \frac{1}{20} \sin(10x) + C$

d) $\frac{1}{16} \sin(6x) - \frac{1}{20} \sin(8x) + C$

e) $\frac{1}{16} \cos(8x) + \frac{1}{12} \sin(6x) + C$

Question 19

You did not answer the question.

Calculate the given integral:

$$\int 4 \sec^4(6x) dx$$

a) $\frac{2}{9} \sec^5(6x) + C$

b) $\frac{4}{3} \tan^3(6x) + 4 \tan(6x) + C$

c) $\frac{2}{9} \sec^5(6x) \tan(6x) + C$

d) $-\frac{2}{9} \tan^3(6x) - \frac{2}{3} \tan(6x) + C$

e) $\frac{2}{9} \tan^3(6x) + \frac{2}{3} \tan(6x) + C$

Question 20

You did not answer the question.

Calculate the given integral:

$$\int 4 \tan^5(3x) dx$$

a) $\frac{2}{9} \tan^6(3x) + \frac{4}{3} \ln |\sec(3x)| + C$

b) $\frac{1}{3} \tan^4(3x) + \frac{4}{3} \ln |\sec(3x)| + C$

c) $\frac{1}{3} \tan^4(3x) - \frac{2}{3} \tan^2(3x) + \frac{4}{3} \ln |\sec(3x)| + C$

d) $\frac{4}{15} \tan^5(3x) + \frac{4}{3} \ln |\sec(3x)| + C$

e) $\frac{2}{9} \tan^6(3x) - \frac{2}{3} \tan^2(3x) + \frac{4}{3} \ln |\sec(3x)| + C$