Antiderivatives & Definite Integrals · 1

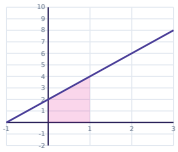
Find the antiderivative: $\int(12x^3 - 1)\,dx$

Antiderivatives & Definite Integrals · 2

Evaluate the definite integral $\int$ from 2 to 4 of $(4x^3 - 9x^2)\,dx$.

Antiderivatives & Definite Integrals · 3

Find the area of the shaded region under $y = 2x + 2$ from $x = 0$ to $x = 1$.



Antiderivatives & Definite Integrals · 4

Evaluate the definite integral $\int$ from -2 to -1 of $(8x^3 + 2x)\,dx$.

Antiderivatives & Definite Integrals · 5

Evaluate the definite integral $\int$ from -2 to 0 of $(8x^3 + 3)\,dx$.

Antiderivatives & Definite Integrals · 6

Evaluate the definite integral $\int$ from 2 to 3 of $(-8x^3 - 2x)\,dx$.

Antiderivatives & Definite Integrals · 7

Evaluate the definite integral $\int$ from -2 to 1 of $(4x^3 + 4x)\,dx$.

Antiderivatives & Definite Integrals · 8

Evaluate the definite integral $\int$ from 0 to 1 of $(8x^3 - 6x^2)\,dx$.

Antiderivatives & Definite Integrals · 2

ANSWER

72

Antiderivatives & Definite Integrals · 1

ANSWER

$3x^4 - x + C$

Antiderivatives & Definite Integrals · 4

ANSWER

-33

Antiderivatives & Definite Integrals · 3

ANSWER

3

Antiderivatives & Definite Integrals · 6

ANSWER

-135

Antiderivatives & Definite Integrals · 5

ANSWER

-26

Antiderivatives & Definite Integrals · 8

ANSWER

0

Antiderivatives & Definite Integrals · 7

ANSWER

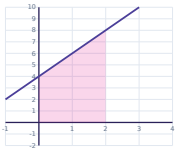
-21

Find the antiderivative:

$\int(-5x^4 - 4x^3)\,dx$

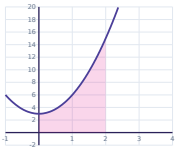
Evaluate the definite integral $\int$ from -2 to 0 of $(5x^4 + 8x^3)\,dx$.

Find the area of the shaded region under $y = 2x + 4$ from $x = 0$ to $x = 2$.



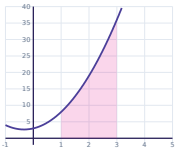
Evaluate the definite integral $\int$ from 2 to 3 of $(-5x^4 + 4x)\,dx$.

Find the area of the shaded region under $y = 3x^2 + 3$ from $x = 0$ to $x = 2$.



Evaluate the definite integral $\int$ from 0 to 2 of $(5x^4 + 6x^2)\,dx$.

Find the area of the shaded region under $y = 3x^2 + 2x + 3$ from $x = 1$ to $x = 3$.



Evaluate the definite integral $\int$ from 1 to 4 of $(15x^4 + 4x^3 + 2x)\,dx$.

Antiderivatives & Definite Integrals · 10

ANSWER

0

Antiderivatives & Definite Integrals · 9

ANSWER

$-x^5 - x^4 + C$

Antiderivatives & Definite Integrals · 12

ANSWER

-201

Antiderivatives & Definite Integrals · 11

ANSWER

12

Antiderivatives & Definite Integrals · 14

ANSWER

48

Antiderivatives & Definite Integrals · 13

ANSWER

14

Antiderivatives & Definite Integrals · 16

ANSWER

3339

Antiderivatives & Definite Integrals · 15

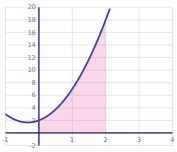
ANSWER

40

Find the antiderivative: $\int(10x^4 + 3)\,dx$

Evaluate the definite integral $\int$ from 2 to 3 of $(5x^4 - 6x)\,dx$.

Find the area of the shaded region under $y = 3x^2 + 2x + 2$ from $x = 0$ to $x = 2$.



Evaluate the definite integral $\int$ from 1 to 3 of $(5x^4 + 6x^2 + 3)\,dx$.

$f'(x) = -4x^3 + 3x^2$ and $f(2) = -11$. Find $f(0)$.

Find the antiderivative: $\int(10x^4 - 4x)\,dx$

Evaluate the definite integral $\int$ from 1 to 4 of $(-5x^4 + 8x^3 - 2)\,dx$.

Find the antiderivative: $\int(-12x^3 - 1)\,dx$

Antiderivatives & Definite Integrals · 18

ANSWER

196

Antiderivatives & Definite Integrals · 17

ANSWER

$2x^5 + 3x + C$

Antiderivatives & Definite Integrals · 20

ANSWER

300

Antiderivatives & Definite Integrals · 19

ANSWER

16

Antiderivatives & Definite Integrals · 22

ANSWER

$2x^5 - 2x^2 + C$

Antiderivatives & Definite Integrals · 21

ANSWER

-3

Antiderivatives & Definite Integrals · 24

ANSWER

$-3x^4 - x + C$

Antiderivatives & Definite Integrals · 23

ANSWER

-519