Task card 1 Antiderivatives & Definite Integra...

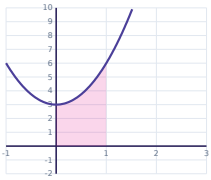
Find the antiderivative: $\int(15x^4 + 12x^3 + 2)\,dx$

Task card 2 Antiderivatives & Definite Integra...

Evaluate the definite integral $\int$ from 2 to 5 of $(-15x^4 - 8x^3 + 2)\,dx$.

Task card 3 Antiderivatives & Definite Integra...

Find the area of the shaded region under $y = 3x^2 + 3$ from $x = 0$ to $x = 1$.



Task card 4 Antiderivatives & Definite Integra...

Evaluate the definite integral $\int$ from -2 to 1 of $(5x^4 - 9x^2 + 4x)\,dx$.

Task card 5 Antiderivatives & Definite Integra...

$f'(x) = -8x^3 + 6x^2$ and $f(2) = -14$. Find $f(0)$.

Task card 6 Antiderivatives & Definite Integra...

Evaluate the definite integral $\int$ from -2 to 1 of $(5x^4 + 12x^3 - 3x^2)\,dx$.

Task card 7 Antiderivatives & Definite Integra...

Evaluate the definite integral ∫ from -2 to -1 of $(5x^4 + 8x^3 + 9x^2)$ dx.

Task card 8 Antiderivatives & Definite Integra...

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

Task card 9 Antiderivatives & Definite Integra...

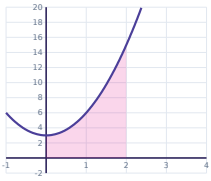
Find the antiderivative: $\int(-10x^4 + 2x + 3)$ dx

Task card 10 Antiderivatives & Definite Integra...

Evaluate the definite integral ∫ from 1 to 2 of $(-10x^4 + 3x^2 + 1)$ dx.

Task card 11 Antiderivatives & Definite Integra...

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



Task card 12 Antiderivatives & Definite Integra...

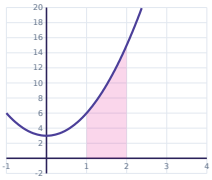
Evaluate the definite integral ∫ from 1 to 3 of $(-15x^4 + 9x^2 - 2)$ dx.

Task card 13 Antiderivatives & Definite Integra...

$f'(x) = 12x^3 - 2$ and $f(1) = -7$. Find $f(0)$.

Task card 14 Antiderivatives & Definite Integra...

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



Task card 15 Antiderivatives & Definite Integra...

$f'(x) = 12x^3 + 3x^2$ and $f(2) = 55$. Find $f(0)$.

Task card 16 Antiderivatives & Definite Integra...

Evaluate the definite integral $\int$ from 2 to 4 of $(-10x^4 - 4x^3 - 6x)\,dx$.

Task card 17 Antiderivatives & Definite Integra...

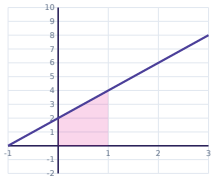
Find the antiderivative: $\int(-15x^4 - 12x^3 - 1)\,dx$

Task card 18 Antiderivatives & Definite Integra...

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

Task card 19 Antiderivatives & Definite Integra...

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



Task card 20 Antiderivatives & Definite Integra...

Evaluate the definite integral ∫ from -1 to 1 of $(-10x^4 - 9x^2)\,dx$.

Task card 21 Antiderivatives & Definite Integra...

$f'(x) = 8x^3 + 6x$ and $f(1) = 1$. Find $f(0)$.

Task card 22 Antiderivatives & Definite Integra...

Find the antiderivative: $\int(15x^4 - 8x^3)\,dx$

Task card 23 Antiderivatives & Definite Integra...

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

Task card 24 Antiderivatives & Definite Integra...

Find the antiderivative: $\int(10x^4 + 3x^2 - 1)\,dx$

Antiderivatives & Definite Integrals Task Cards

Recording sheet · Grade 12 · For an antiderivative, include + C (like x^3 + 2x + C). For a definite integral or area, give the number.

Name: _____ Date: _____

Scan to check your answers

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Antiderivatives & Definite Integrals Task Cards: Answer Key

Grade 12 · Hard

The answers online

1. $3x^5 + 3x^4 + 2x + C$	**2.** -10491	**3.** 4
4. 0	**5.** 2	**6.** -21
7. 22	**8.** 2	**9.** $-2x^5 + x^2 + 3x + C$
10. -54	**11.** 14	**12.** -652
13. -8	**14.** 10	**15.** -1
16. -2260	**17.** $-3x^5 - 3x^4 - x + C$	**18.** -36
19. 3	**20.** -10	**21.** -4
22. $3x^5 - 2x^4 + C$	**23.** 2944	**24.** $2x^5 + x^3 - x + C$