

Calculus Practice: Indefinite Integrals 1a

Evaluate each indefinite integral.

1) $\int 24x^7 dx$

- A) $24x^8 + C$ B) $3x^7 + C$
C) $24x + C$ D) $3x^8 + C$

2) $\int x(48x^6 + 49x^5 + 10) dx$

- A) $48x^8 + 49x^7 + 10x^2 + C$
B) $6x^7 + 7x^6 + 5x + C$
C) $6x^8 + 7x^7 + 5x^2 + C$
D) $107x + C$

3) $\int (-11x^{10} + 60x^5 + 16x) dx$

- A) $65x + C$
B) $-11x^{11} + 60x^6 + 16x^2 + C$
C) $-x^{10} + 10x^5 + 8x + C$
D) $-x^{11} + 10x^6 + 8x^2 + C$

4) $\int (60x^9 - 5x^4) dx$

- A) $6x^{10} - x^5 + C$
B) $60x^{10} - 5x^5 + C$
C) $55x + C$
D) $6x^9 - x^4 + C$

5) $\int (-48x^7 + 54x^5 + 1) dx$

- A) $-6x^7 + 9x^5 + 1 + C$
B) $-6x^8 + 9x^6 + x + C$
C) $7x + C$
D) $-48x^8 + 54x^6 + x + C$

6) $\int 3x^2(15x^6 + 4x^3 + 2) dx$

- A) $45x^9 + 12x^6 + 6x^3 + C$
B) $5x^9 + 2x^6 + 2x^3 + C$
C) $5x^8 + 2x^5 + 2x^2 + C$
D) $63x + C$

7) $\int 3x^2(3x^6 + 6x^3 - 4) dx$

- A) $15x + C$
B) $9x^9 + 18x^6 - 12x^3 + C$
C) $x^9 + 3x^6 - 4x^3 + C$
D) $x^8 + 3x^5 - 4x^2 + C$

8) $\int 4(-11x^{10} - 1) dx$

- A) $-44x^{11} - 4x + C$
B) $-4x^{10} - 4 + C$
C) $-4x^{11} - 4x + C$
D) $-48x + C$

9) $\int (30x^9 + 48x^5) dx$

- A) $30x^{10} + 48x^6 + C$
B) $3x^9 + 8x^5 + C$
C) $3x^{10} + 8x^6 + C$
D) $78x + C$

10) $\int x^4(-70x^5 + 49x^2 - 10) dx$

- A) $-70x^{10} + 49x^7 - 10x^5 + C$
B) $-31x + C$
C) $-7x^{10} + 7x^7 - 2x^5 + C$
D) $-7x^9 + 7x^6 - 2x^4 + C$

$$11) \int \frac{8(x^7 - 2x^4 + 5)}{x^9} dx$$

- A) $\frac{8}{x} - \frac{16}{x^4} + \frac{40}{x^8} + C$
 B) $-\frac{8}{x} + \frac{4}{x^4} - \frac{5}{x^8} + C$
 C) $-\frac{8}{x^2} + \frac{4}{x^5} - \frac{5}{x^9} + C$
 D) $32x + C$

$$13) \int \frac{-20x^2 - 54x - 21}{x^8} dx$$

- A) $\frac{4}{x^6} + \frac{9}{x^7} + \frac{3}{x^8} + C$
 B) $\frac{4}{x^5} + \frac{9}{x^6} + \frac{3}{x^7} + C$
 C) $-95x + C$
 D) $-\frac{20}{x^5} - \frac{54}{x^6} - \frac{21}{x^7} + C$

$$15) \int -\frac{32}{x^9} dx$$

- A) $\frac{4}{x^8} + C$ B) $-32x + C$
 C) $-\frac{32}{x^8} + C$ D) $\frac{4}{x^9} + C$

$$17) \int (-18x^{-4} - 48x^{-7}) dx$$

- A) $-66x + C$
 B) $\frac{6}{x^4} + \frac{8}{x^7} + C$
 C) $\frac{6}{x^3} + \frac{8}{x^6} + C$
 D) $-\frac{18}{x^3} - \frac{48}{x^6} + C$

$$19) \int \left(\frac{18}{x^7} + \frac{56}{x^9} \right) dx$$

- A) $74x + C$
 B) $-\frac{3}{x^7} - \frac{7}{x^9} + C$
 C) $-\frac{3}{x^6} - \frac{7}{x^8} + C$
 D) $\frac{18}{x^6} + \frac{56}{x^8} + C$

$$12) \int \left(\frac{1}{x^2} - \frac{36}{x^5} - \frac{81}{x^{10}} \right) dx$$

- A) $-116x + C$
 B) $\frac{1}{x} - \frac{36}{x^4} - \frac{81}{x^9} + C$
 C) $-\frac{1}{x} + \frac{9}{x^4} + \frac{9}{x^9} + C$
 D) $-\frac{1}{x^2} + \frac{9}{x^5} + \frac{9}{x^{10}} + C$

$$14) \int 6x^{-2} dx$$

- A) $\frac{6}{x} + C$ B) $6x + C$
 C) $-\frac{6}{x^2} + C$ D) $-\frac{6}{x} + C$

$$16) \int -\frac{8}{x^3} dx$$

- A) $\frac{4}{x^3} + C$ B) $-8x + C$
 C) $\frac{4}{x^2} + C$ D) $-\frac{8}{x^2} + C$

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- A) $-\frac{18}{x^3} + C$ B) $\frac{6}{x^3} + C$
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$$20) \int (-35x^{-6} - 56x^{-8} + 48x^{-9}) dx$$

- A) $\frac{7}{x^6} + \frac{8}{x^8} - \frac{6}{x^9} + C$
 B) $-\frac{35}{x^5} - \frac{56}{x^7} + \frac{48}{x^8} + C$
 C) $\frac{7}{x^5} + \frac{8}{x^7} - \frac{6}{x^8} + C$
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