

Unit 4: Integration Practice

Date _____ Period _____

Evaluate each indefinite integral.

1) $\int \left(99x^{10} + 40x^3 + \frac{9x^{\frac{5}{4}}}{4} \right) dx$

2) $\int (90x^9 + 64x^7) dx$

3) $\int (-7x^{-2} - 32x^{-5}) dx$

4) $\int \left(16s - \frac{50s^{\frac{3}{7}}}{7} \right) ds$

5) $\int \left(10x^9 - \frac{54x^{\frac{4}{5}}}{5} + 2x^{-2} \right) dx$

6) $\int \left(-4t + \frac{81t^{\frac{1}{8}}}{8} \right) dt$

7) $\int -80x^{-9} dx$

8) $\int -4\sec x \cdot \tan x dx$

9) $\int -3\cos x dx$

10) $\int -3 \cdot \csc^2 x dx$

$$11) \int 3 \cdot \sec^2 x \, dx$$

$$12) \int -3\csc x \cdot \cot x \, dx$$

Answers to Unit 4: Integration Practice (ID: 1)

$$1) 9x^{11} + 10x^4 + x^{\frac{9}{4}} + C$$

$$2) 9x^{10} + 8x^8 + C$$

$$3) \frac{7}{x} + \frac{8}{x^4} + C$$

$$4) 8s^2 - 5s^{\frac{10}{7}} + C$$

$$5) x^{10} - 6x^{\frac{9}{5}} - \frac{2}{x} + C$$

$$6) -2t^2 + 9t^{\frac{9}{8}} + C$$

$$7) \frac{10}{x^8} + C$$

$$8) -4\sec x + C$$

$$9) -3\sin x + C$$

$$10) 3\cot x + C$$

$$11) 3\tan x + C$$

$$12) 3\csc x + C$$