Name : _____ Score : _____

Teacher : _____ Date : _____

Integration by Substitution

Find each indefinite integral using the substitution provided.

1) $\int \left(\frac{-2e^{6+\ln 2x}}{x}\right)dx$

$u = 6 + \ln 2x$

2) $\int \left(\frac{-2e^{7+\ln 10x}}{x}\right)dx$

$u = 7 + \ln 10x$

3) $\int \left(\frac{8e^{8+\ln 9x}}{x}\right)dx$

$u = 8 + \ln 9x$

4) $\int \left(\frac{5e^{6+\ln 9x}}{x}\right)dx$

$u = 6 + \ln 9x$

5) $\int \left(\frac{-3e^{1+\ln 7x}}{x}\right)dx$

$u = 1 + \ln 7x$

6) $\int \left(\frac{4e^{3+\ln 8x}}{x}\right)dx$

$u = 3 + \ln 8x$

7) $\int \left(\frac{2e^{6+\ln 7x}}{x}\right)dx$

$u = 6 + \ln 7x$

8) $\int \left(\frac{2e^{10+\ln 5x}}{x}\right)dx$

$u = 10 + \ln 5x$

Name : _____ Score : _____

Teacher : _____ Date : _____

Integration by Substitution

Find each indefinite integral using the substitution provided.

9) $\int \left(\frac{-5e^{4+\ln 5x}}{x}\right)dx$

$u = 4 + \ln 5x$

10) $\int \left(\frac{-4e^{2+\ln 3x}}{x}\right)dx$

$u = 2 + \ln 3x$

11) $\int \left(\frac{-e^{8+\ln 1x}}{x}\right)dx$

$u = 8 + \ln 1x$

12) $\int \left(\frac{-3e^{2+\ln 9x}}{x}\right)dx$

$u = 2 + \ln 9x$

13) $\int \left(\frac{-e^{1+\ln 3x}}{x}\right)dx$

$u = 1 + \ln 3x$

14) $\int \left(\frac{3e^{5+\ln 7x}}{x}\right)dx$

$u = 5 + \ln 7x$

15) $\int \left(\frac{4e^{5+\ln 10x}}{x}\right)dx$

$u = 5 + \ln 10x$

16) $\int \left(\frac{-5e^{9+\ln 5x}}{x}\right)dx$

$u = 9 + \ln 5x$

Name : _____ Score : _____

Teacher : _____ Date : _____

Integration by Substitution

Find each indefinite integral using the substitution provided.

1) $\int \left(\frac{-2e^{6+\ln 2x}}{x}\right)dx$

$u = 6 + \ln 2x$

$-2e^{6+\ln 2x} + C$

2) $\int \left(\frac{-2e^{7+\ln 10x}}{x}\right)dx$

$u = 7 + \ln 10x$

$-2e^{7+\ln 10x} + C$

3) $\int \left(\frac{8e^{8+\ln 9x}}{x}\right)dx$

$u = 8 + \ln 9x$

$8e^{8+\ln 9x} + C$

4) $\int \left(\frac{5e^{6+\ln 9x}}{x}\right)dx$

$u = 6 + \ln 9x$

$5e^{6+\ln 9x} + C$

5) $\int \left(\frac{-3e^{1+\ln 7x}}{x}\right)dx$

$u = 1 + \ln 7x$

$-3e^{1+\ln 7x} + C$

6) $\int \left(\frac{4e^{3+\ln 8x}}{x}\right)dx$

$u = 3 + \ln 8x$

$4e^{3+\ln 8x} + C$

7) $\int \left(\frac{2e^{6+\ln 7x}}{x}\right)dx$

$u = 6 + \ln 7x$

$2e^{6+\ln 7x} + C$

8) $\int \left(\frac{2e^{10+\ln 5x}}{x}\right)dx$

$u = 10 + \ln 5x$

$2e^{10+\ln 5x} + C$

Name : _____ Score : _____

Teacher : _____ Date : _____

Integration by Substitution

Find each indefinite integral using the substitution provided.

9) $\int \left(\frac{-5e^{4+\ln 5x}}{x}\right)dx$

$u = 4 + \ln 5x$

$-5e^{4+\ln 5x} + C$

10) $\int \left(\frac{-4e^{2+\ln 3x}}{x}\right)dx$

$u = 2 + \ln 3x$

$-4e^{2+\ln 3x} + C$

11) $\int \left(\frac{-e^{8+\ln 1x}}{x}\right)dx$

$u = 8 + \ln 1x$

$-e^{8+\ln 1x} + C$

12) $\int \left(\frac{-3e^{2+\ln 9x}}{x}\right)dx$

$u = 2 + \ln 9x$

$-3e^{2+\ln 9x} + C$

13) $\int \left(\frac{-e^{1+\ln 3x}}{x}\right)dx$

$u = 1 + \ln 3x$

$-e^{1+\ln 3x} + C$

14) $\int \left(\frac{3e^{5+\ln 7x}}{x}\right)dx$

$u = 5 + \ln 7x$

$3e^{5+\ln 7x} + C$

15) $\int \left(\frac{4e^{5+\ln 10x}}{x}\right)dx$

$u = 5 + \ln 10x$

$4e^{5+\ln 10x} + C$

16) $\int \left(\frac{-5e^{9+\ln 5x}}{x}\right)dx$

$u = 9 + \ln 5x$

$-5e^{9+\ln 5x} + C$