

## Section 5-4 : More Substitution Rule

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Evaluate each of the following integrals.

1.  $\int 4\sqrt{5+9t} + 12(5+9t)^7 dt$

2.  $\int 7x^3 \cos(2+x^4) - 8x^3 e^{2+x^4} dx$

3.  $\int \frac{6e^{7w}}{(1-8e^{7w})^3} + \frac{14e^{7w}}{1-8e^{7w}} dw$

4.  $\int x^4 - 7x^5 \cos(2x^6 + 3) dx$

5.  $\int e^z + \frac{4 \sin(8z)}{1+9 \cos(8z)} dz$

6.  $\int 20e^{2-8w} \sqrt{1+e^{2-8w}} + 7w^3 - 6 \sqrt[3]{w} dw$

7.  $\int (4+7t)^3 - 9t \sqrt[4]{5t^2+3} dt$

8.  $\int \frac{6x-x^2}{x^3-9x^2+8} - \csc^2\left(\frac{3x}{2}\right) dx$

9.  $\int 7(3y+2)(4y+3y^2)^3 + \sin(3+8y) dy$

10.  $\int \sec^2(2t)[9+7 \tan(2t) - \tan^2(2t)] dt$

11.  $\int \frac{8-w}{4w^2+9} dw$

12.  $\int \frac{7x+2}{\sqrt{1-25x^2}} dx$

13.  $\int z^7 (8+3z^4)^8 dz$

