M1B/Schoenbrun   Section 5.5 Substitution

Evaluate using substitution

1) $\displaystyle\int_{0}^{3} x\sqrt{1+x}\ dx$

2) $\displaystyle\int x^{2}\left(x^{3}+5\right)^{9}\ dx$

3) $\displaystyle\int \frac{1-e^{x}}{1+e^{x}}\ dx$

4) $\int x^3 \cos\left(x^4 + 2\right) dx$

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

6) $\int\limits_0^1 2x^2 \left(4x + 1\right)^{-\frac{5}{2}} dx$