1. $\displaystyle\lim_{x \to \infty} (3x + 1)^{1/x}$

2. $\displaystyle\int \left(2x^7 - x + 4e^x\right) dx =$

3. $\displaystyle\int \left(5 + \sec^2(x)\right) dx =$

4. $\displaystyle\int \left(\frac{1}{x^3} + \frac{1}{x}\right) dx =$

1. $\displaystyle \lim_{x \to 0^+} (3x + 1)^{1/x}$

2. $\displaystyle \int \sqrt{x}\, dx =$

3. $\displaystyle \int \left(e^x - 2 + \sec(x)\tan(x) \right) dx =$

4. $\displaystyle \int \left(\frac{1}{x} + \frac{1}{x^2} \right) dx =$