

1.  $\lim_{h \rightarrow 0} \frac{[\frac{1}{\sqrt[3]{4+h}} - \sec(4+h)] - [\frac{1}{\sqrt[3]{4}} - \sec(4)]}{h}$

2.  $-\frac{6}{t^4} + \frac{1}{t^2} + 16t - 4$

3.  $-\frac{1}{3u^{4/3}} - \frac{3}{2\sqrt{u}}$

4.  $\theta^2(3 \cos(\theta) - \theta \sin(\theta))$

5.  $\frac{7 - 2t - 3t^2 - 2t^3 + t^4}{(1 - 3t + t^3)^2}$

6.  $-\frac{2x + 3}{2(x^2 + 3x - 1)^{3/2}}$

7.  $-4 \cot^3(u) \csc^2(u)$

8.  $y = 11x - 39$

9.  $-\frac{3}{\pi^2} \sin\left(\frac{t-1}{\pi}\right)$

10.  $\frac{7x^6 - 9x^8y^4 + 5x^4y^8}{4x^9y^3 - 6y^5 - 8x^5y^7}$