

Full Name:

ID:

Section:

Serial number:

Question 1 Evaluate

a) $\int \sec(2x) \tan^2(2x) dx$

b) $\int (\sin x - 1)^7 \cos^3 x dx$

$$c) \int \frac{1}{\sqrt{2x^2 + 4x + 5}} dx$$

$$d) \int_1^2 \frac{3^{\log_2 x}}{x} dx$$

Question 2 If $\sinh x = \frac{4}{3}$, then find $\coth(2x)$.