1) Find the solution of the following integral. (3 points)

$$\int \frac{dx}{x^2\sqrt{x^2+3}}dx \tag{1}$$

hint: The expression under the square root is of the form $\sqrt{a^2+x^2}$,(take $a=\sqrt{3}$). If you recall, the suitable substitution for solving this integral is $x=\sqrt{3}\tan(u)$. Perform this substitution and find the solution.

2) Evaluate the following integral.

$$\int \frac{2}{x^3 + 3x - 4} dx \tag{2}$$