List the intervals where the following graph is increasing and list the intervals where the graph is concave down.

A poster will contain 108 cm² of printed matter with 6 cm margins on the top and bottom and 2 cm margins on the sides. What is the minimal possible area?

\[
\int_0^{\pi/2} \frac{5\sin x}{(1 + \cos x)^2} \, dx, \quad \int \frac{5x^2 - 2x + 1}{\sqrt{3x}} \, dx
\]

\[
\int \cos (\tan x) \sec^2 x \, dx, \quad \int \frac{dx}{\sqrt{x(5x+1)^2}}
\]