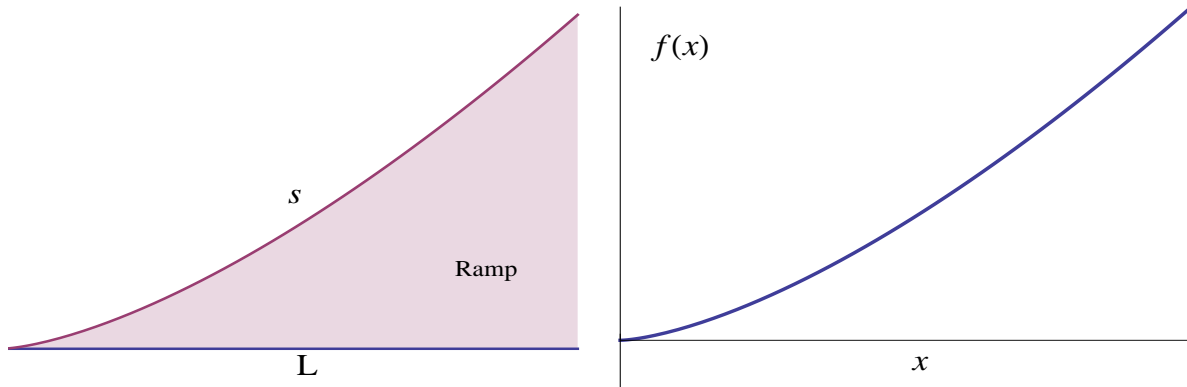**5.** [8 points] A company wants to design a bicycle ramp using the shape of the graph of the function $f(x) = \frac{4}{3}x^{\frac{3}{2}}$, where x is the length in meters of the base of the ramp.

Find the length s of a ramp with base of length L. Show all your work.