

**Problem 7.1**

Velocity profiles were measured at two locations downstream of a jet exiting a nozzle of diameter  $D$ . The locations are:  $X = 20 D$  and  $40 D$ .

- 1) Sketch the profile,  $v_{rms}(y)$ , at each station. Explain the shape of your plot.
- 2) What is the length scale of the eddies which dominate mixing within the jet? Sketch this length scale and the corresponding eddy below.

