

Problem 1.3

As part of a water quality study, you have been asked to assess the diffusion of a new fluorescent dye. To accomplish this, you do a dye study in a laboratory tank ($h = 40$ cm). You release 100 g of the dye at a depth of 20 cm (spread evenly over the area of the tank) and monitor its development over time. Vertical profiles of dye concentration in the tank are shown in the figure below; the x-axis represents depth and the y-axis represents the reading on your fluorometer.

