

a)

$\downarrow 2.1 \text{ m/s}$

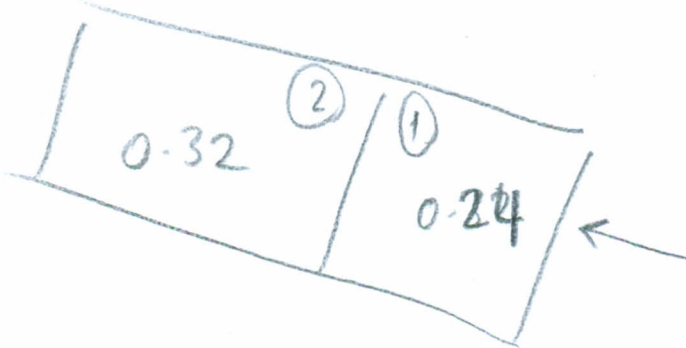
$H = 1000 \text{ m}$

$Q = 11600 \text{ kg/h}$

$$2 + \frac{11600 \frac{\text{kg}}{\text{hr}} \times \frac{\text{hr}}{3600 \text{ sec}} \times \frac{10^9 \mu\text{g}}{\text{kg}} \times \frac{171000 \times 63000}{171000 \times 63000} \times 63000}{2.1 \times 1000}$$

$= 11 \mu\text{g}/\text{m}^3$

b)



(1) $= 11 + \frac{0.24 \cdot 75000}{2.3 \cdot 1000} = 18.82$

(2) $18.82 + \frac{0.32 \cdot 96000}{2.3 \cdot 1000} = 32.2$