



Bernoulli A  $\rightarrow$  B

$$h_w + z + \frac{\alpha \cdot v_A^2}{2g} = \frac{\alpha \cdot v_B^2}{2g}$$

$$\rightarrow v_B = \sqrt{\frac{2g}{\alpha} \left( h_w + z + \frac{\alpha v_A^2}{2g} \right)}$$

$$Q_{out} = n_{taps} \cdot v_B \cdot A_{valve}$$

$$n_{bottles} = \frac{Q_{out} \cdot t}{V_{bottle}}$$

$$\Delta h_w = (Q_{in} - Q_{out}) \cdot \frac{\Delta t}{A_{container}}$$