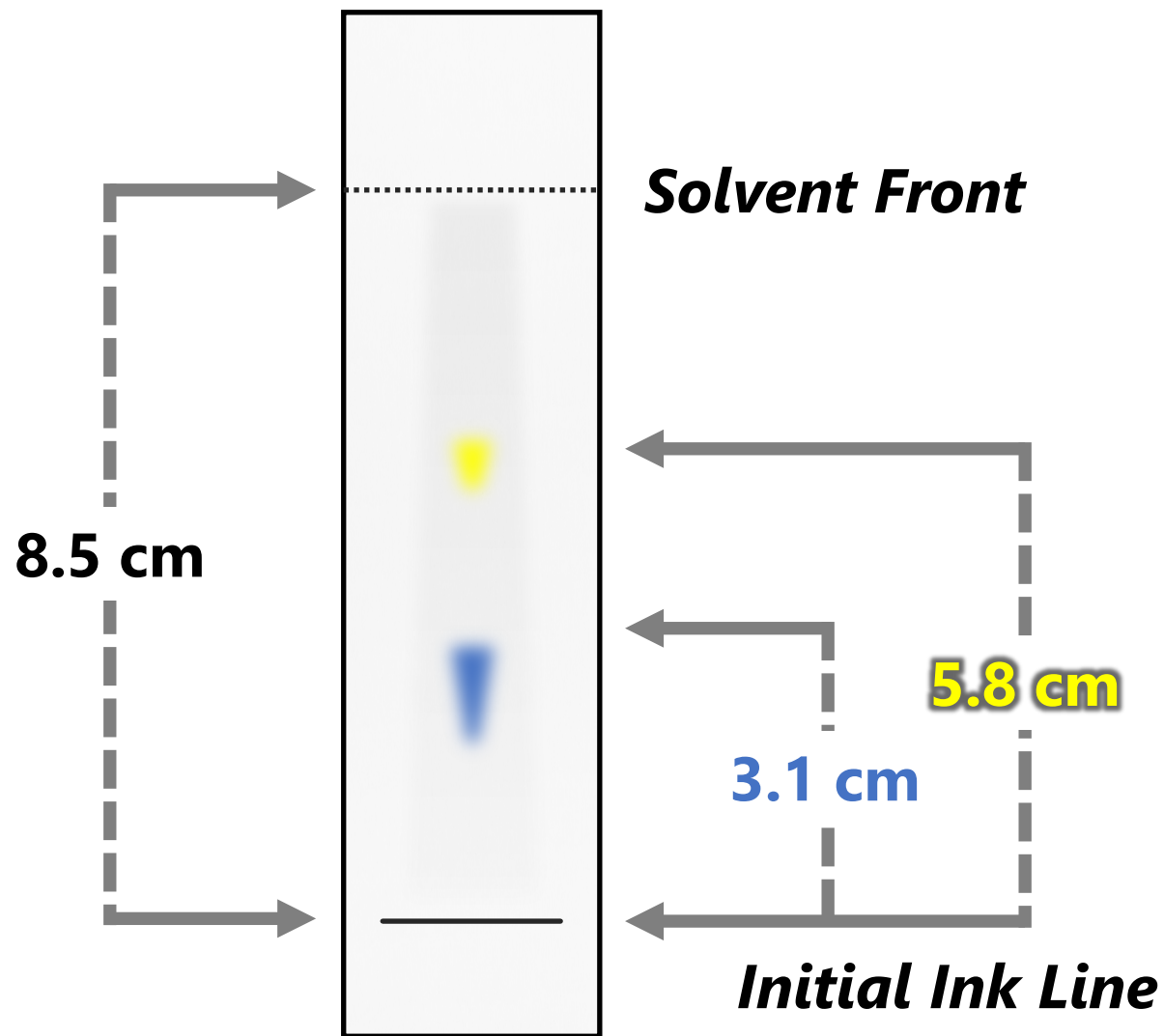


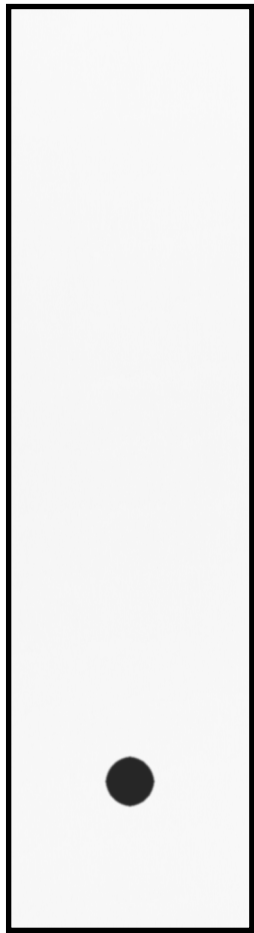
Determining Retention Factor (R_f)



$$R_f (\text{Yellow}) = \frac{5.8 \text{ cm}}{8.5 \text{ cm}} = 0.72$$

$$R_f (\text{Blue}) = \frac{3.1 \text{ cm}}{8.5 \text{ cm}} = 0.36$$

A black ink can be made up of several different dyes. Each dye can behave differently with different solvents. This allows you to separate the dyes from the mixture.



Solvent 1



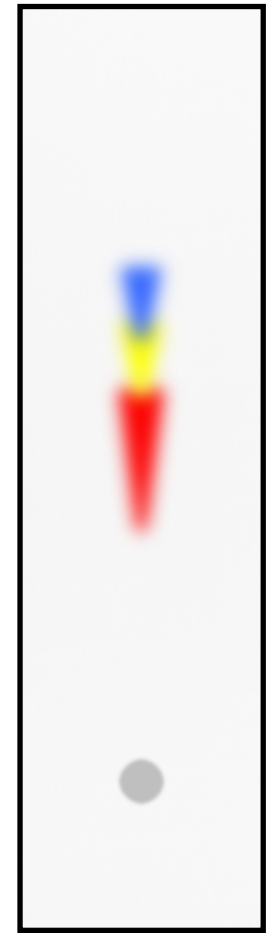
Solvent 2



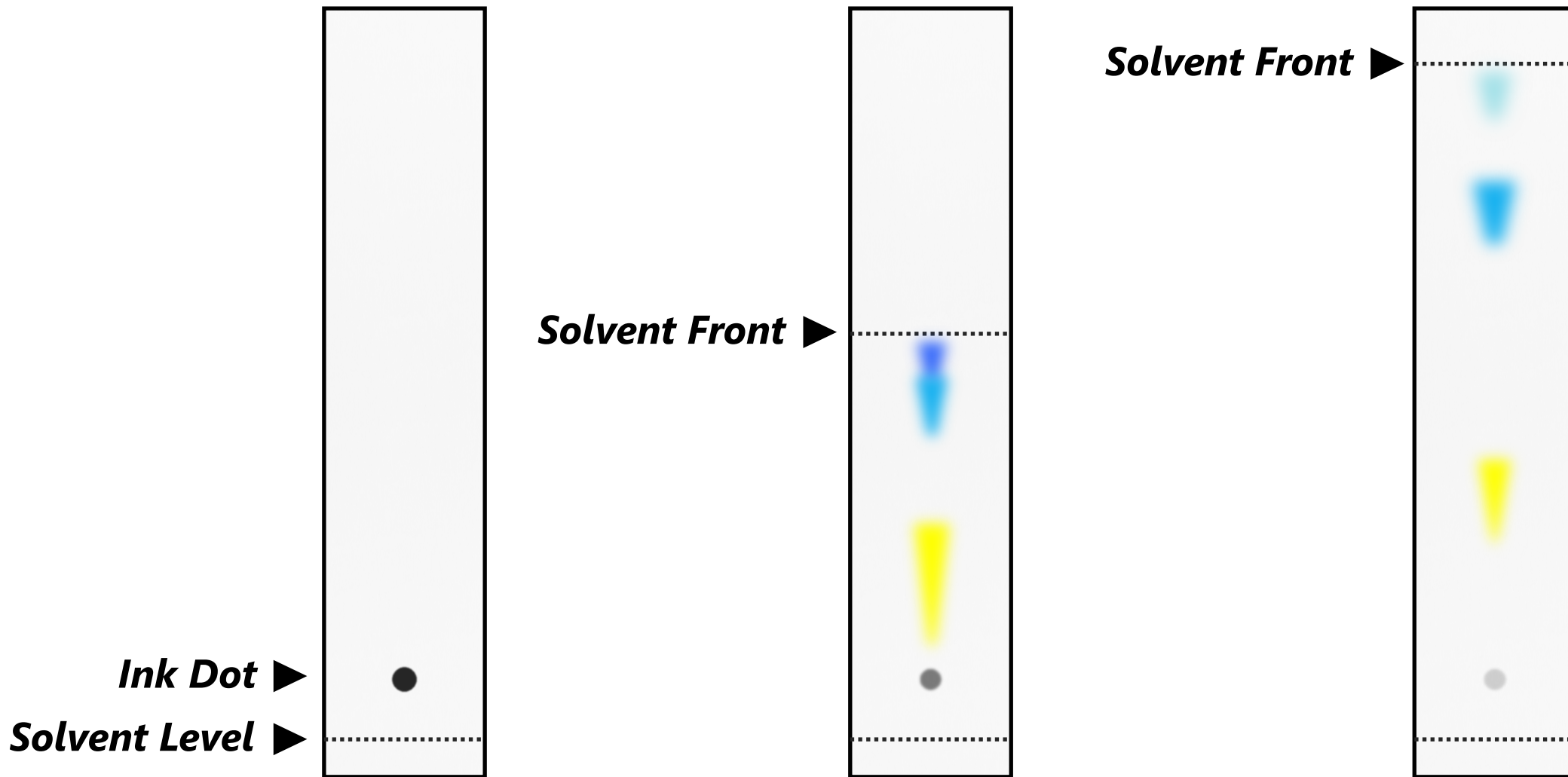
Solvent 3



Solvent 4



Solvent 5



- Why is it important that the solvent level never touches the ink dot itself?
- Why is it important to pull the paper strip out of the solvent before the solvent front reaches the top of the strip?

- **Why is it important that the solvent level never touches the ink dot itself?**

Some of the ink will move backwards into the solvent reservoir.

- **Why is it important to pull the paper strip out of the solvent before the solvent front reaches the top of the strip?**

The solvent will continue to move up with the paper, bringing the inks along with it. Eventually, every component will be at the top of the strip.