Mini-Lab 2: What Color Is My Ink?

Procedure:
1. Use the marker you have been given to draw a horizontal line across a strip of chromatography paper. The line should be drawn at one end of the paper, approximately 2 cm from the bottom of the strip of paper.
2. Tape the unmarked end of chromatography paper to the center of a pencil or a glass stirring rod so that the paper will hang down vertically inside the container or beaker. (When the pencil/stirring rod is held horizontally, the chromatography paper should hang down vertically.)
3. Pour a small amount of chromatography solvent in the bottom of a 400 mL beaker.
4. Rest the glass stirring rod on the rim of the beaker so that the strip of chromatography paper is just barely in contact with the solvent in the bottom of the beaker. **NOTE: Make sure that the ink line drawn on the paper is above the level of the chromatography solvent.**
5. Allow to stand for 15 minutes.
6. If time permits, repeat this experiment with a pen of different color.
7. After about 15 minutes, remove the strip of chromatography paper and allow it to air dry. When dry, staple or tape the strip in the space below.

Analysis Questions:

1. What was the original color of the ink used in this experiment?

2. What colors appeared on your chromatogram?

3. Does this indicate that the ink is a compound or a mixture? Explain.

4. What is the purpose of the procedure known as paper chromatography?

5. In chromatography, materials tend to separate based on their solubility in the chromatography solvent and on their molecular weight.

What color rose the highest on the paper? What does this indicate about this particular substance (color)?