

# Kool Chromatography Worksheet

## Discussion Questions

1. Describe what happened in this demonstration.
2. The Sep-Pak C18 cartridge is very non-polar. Rank the three solutions used to separate the Kool-Aid, water, 5% isopropyl alcohol, and 25% isopropyl alcohol, in terms of their polarity from the most non-polar to the most polar.
3. The ingredients of grape Kool-Aid are sugar, citric acid, ascorbic acid, blue dye, and red dye. Water, 5% isopropyl alcohol, and 25% isopropyl alcohol were passed through the column in that order. Based on what you know about the polarity of the solutions, explain what you observed during the demonstration.
4. High-Performance liquid chromatography, also known as HPLC, is often used for quantitative analyses. HPLC requires the use of a solvent delivery system, an injector, a column, and a detector. This demonstration is comparable to HPLC. Therefore, what is the equivalent of each of those materials in this demonstration procedure?