

# Paper Chromatography

## Experiment No. 10

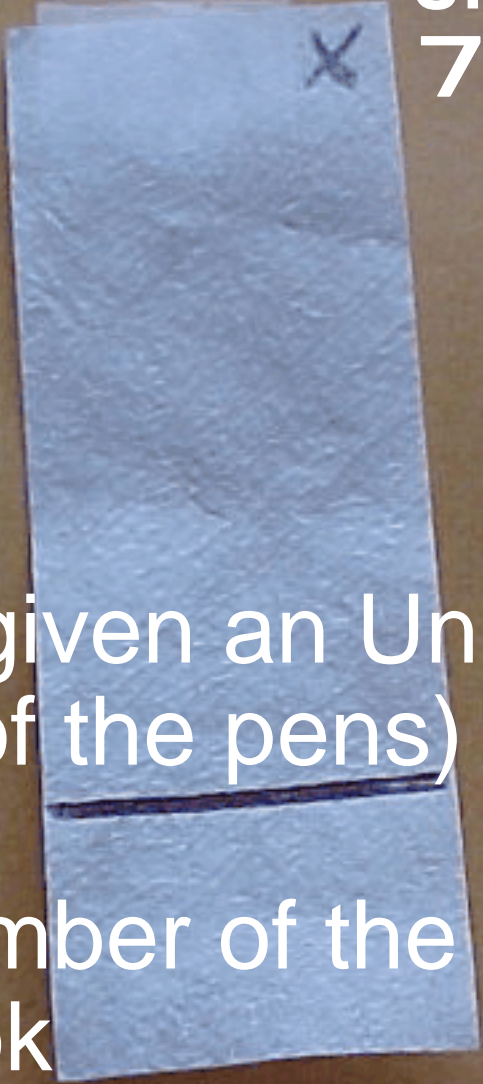
You're provided with 4 black ink pens



Draw a line for each pen on the strips of paper provided



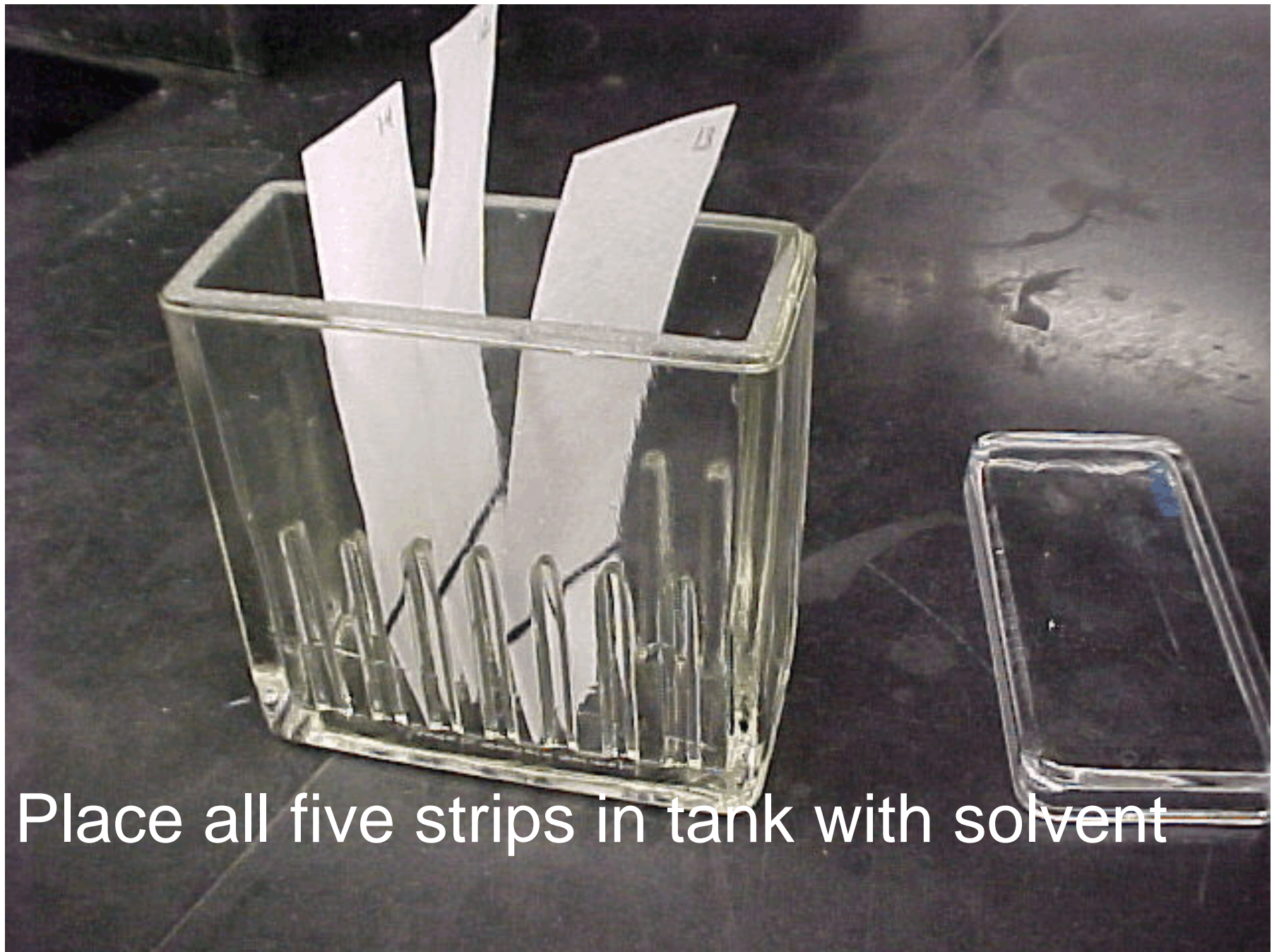
} 2 cm

A blue, textured paper strip is oriented vertically on a brown background. At the top right corner of the strip, there is a small, dark 'X' mark. The strip appears to be a piece of paper used for labeling or identification in a laboratory setting.

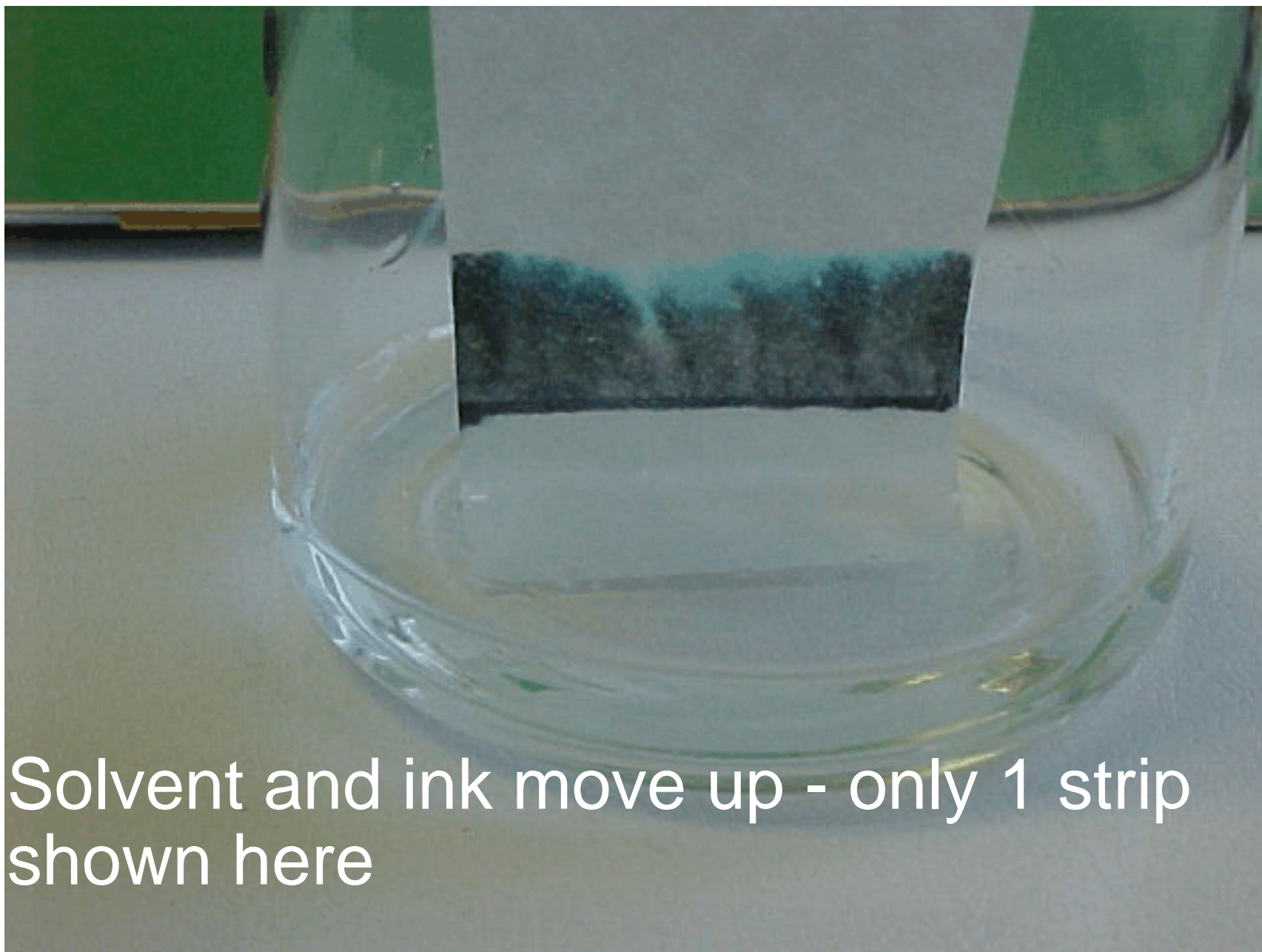
Unknown number  
7

You will be given an Unknown (which will be one of the pens)

Note the number of the unknown in your lab book



Place all five strips in tank with solvent



Solvent and ink move up - only 1 strip shown here

**Data:** (Include units.)

Tape the chromatograms of each of the four pens in the area below and write the name of the pen below the chromatogram:

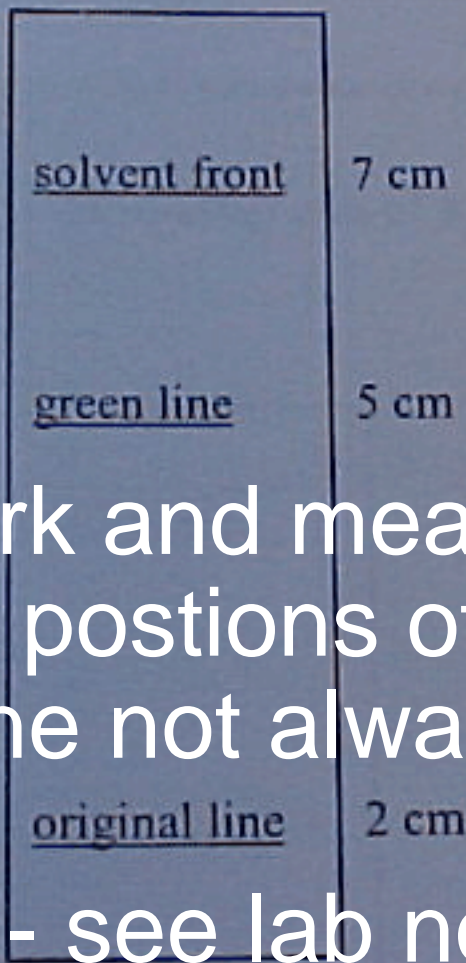


You'll get 4 strips like this, plus the unknown

Bear note

...the following diagram below the distance moved by the green line would correspond

$$R_f = \frac{5 \text{ cm} - 2 \text{ cm}}{7 \text{ cm} - 2 \text{ cm}} = \frac{3 \text{ cm}}{5 \text{ cm}} = 0.6$$



For each mark and measure solvent front and the positions of each line on each strip (line not always even)

Calculate R<sub>f</sub> - see lab notes

**Identify unknown from Rf values**

**One lab partner tapes strips to report.**

**Other lab partner should note: “See partner’s (name) lab report for strips”**

**Both should still give unknown pen number and identify unknown.**

EXPERIMENT : 10

PAPER CHROMATOGRAPHY OF INK

DATA AND OBSERVATIONS

Name(s) : \_\_\_\_\_ Date : \_\_\_\_\_

Class/Section : \_\_\_\_\_ Instructor : \_\_\_\_\_

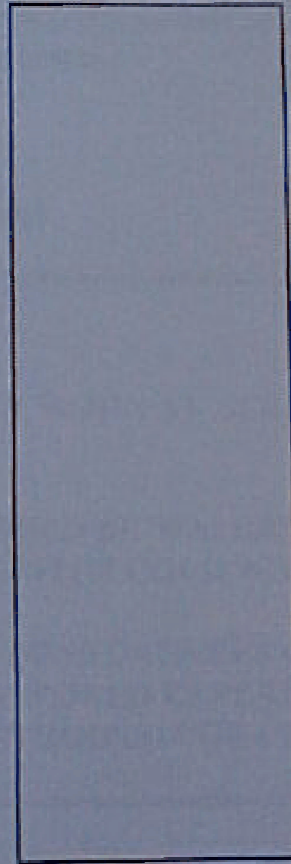


Chromatograms of known pens :

| 1. _____<br>(Name) | 2. _____<br>(Name) | 3. _____<br>(Name) | 4. _____<br>(Name) |
|--------------------|--------------------|--------------------|--------------------|
|                    |                    |                    |                    |

**PAPER CHROMATOGRAPHY OF INK**

**Chromatogram of Unknown Pen :**



**Unknown Sample Number :**           **X**