

## HOW TO FIND Rf VALUES

Rf value or “ratio to front” is a measurement of how far pigment travels on the filter paper vs. how far the water travels.

To find an Rf value you need to measure how far a pigment travelled from its origin (the ink dot). Then you need to find how far the water traveled from the same spot. In our lab the pencil mark would be the origin for both the pigments and the water.

Once you know the distance the pigment travelled and the distance the water travelled all you need to do is divide the distance the pigment travelled by the distance the water travelled.

For example:

Green travelled 5 cm from its origin.

Water travelled 10 cm.

$$5 \div 10 = .5$$

So the Rf value is .5.

Rf values fall between 0 and 1. If a value is closer to 0 this means that the pigment is very heavy and hard for water to move up the filter paper. If the Rf value is close to 1 the pigment is not very heavy and will easily be carried by water.