Name:_		
Blk:	Date:	

Chemistry 12 ACID BASE PART II Lesson # 17 INDICATORS CONTINUED

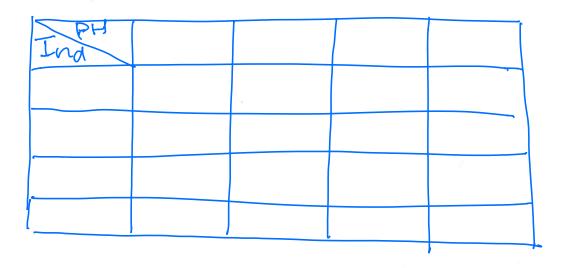
For today's lesson we first need to review our elementary school knowledge of COLOURS

- 1. To make Green you mix:
- 2. To make Orange you mix:
- 3. To make Purple you mix:
- 4. To make Brown you mix:

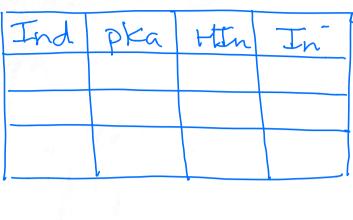
A UNIVERSAL INDICATOR is an indicator solution that changes colour several times over a range of pH values.

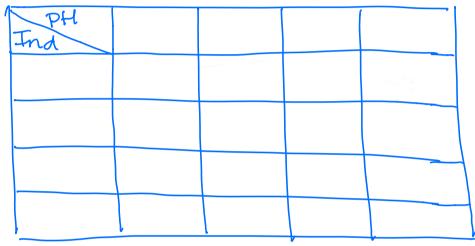
Example 1. Identify the colour and pH range that aUNIVERSAL INDICATOR made up of Methyl Orange, Bromothymol Blue and Phenolphthalein would produce.

Ind	pka	Hlm	In-
2			



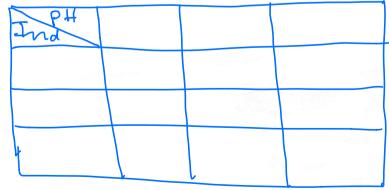
Example 2. When a unknown substance was tested with a mixed indicator of Methyl Red, Phenol Red and Phenolpthalein the solution was YELLOW Give the pH range for the unknown substance.





Example3. A mixture of Thymol Blue and Alizarin Yellow is put in a solution with $[OH-]=1.0 \times 10^{-4} M$. Use your table of Acid-Base indicators to determine the colour of this mixed indicator.

Ind	pka	HIn	In-
<i>a</i>			47 M (1976)



SEATWORK/HOMEWORK: Exercises 115-120 pg 163 in HEBDEN

PLO's: 01-05

