Name_____

Part 1.

Record observations as SOLUBLE (Sol), PARTIALLY SOLUBLE (Psol), or INSOLUBLE (Insol)

	WATER	CYCLOHEXANE
1. Ethanol	_____	_____
2. Naphthalene	_____	_____
3. NaCl	_____	_____
4. KI	_____	_____
5. $BaSO_4$	_____	_____
6. Vegetable oil	_____	_____
7. Water	_____	_____
8. Baking soda ($NaHCO_3$)	_____	_____
9. Paraffin wax	_____	_____
10. Heptane	_____	_____
11. Acetic acid	_____	_____
12. Butter	_____	_____

Part 2. Solubility of Alcohols in Water: Record #drops of alcohol that will dissolve in 2 mL water.

Methanol (methyl alcohol	1-propanol (n-propyl alcohol	1-butanol (n-butyl alcohol)	1-pentanol (n-pentyl alcohol)	1-hexanol (n-hexyl alcohol)

Name_____

Part 3. Water-soluble vs fat-soluble vitamins

Vitamin A	Vitamin C (ascorbic acid)	Vitamin B1 (thiamine)	Vitamin B2 (riboflavin)	Vitamin E (α-tocopherol)

ANSWERS TO QUESTIONS

1. From Part 2 results: what is the effect of carbon chain length on solubility in water?

2. Predict the solubility of the alcohols of part 2 in order of decreasing solubility (most soluble first):

3. How do the structures of the "fat-soluble" and the "water-soluble" vitamins differ?