

Name: _____

Block: _____

Date: _____

Chemistry 11

Mixtures Worksheet

Assignment

1. Identify each of the following substances as pure substances, heterogeneous mixtures, or homogeneous mixtures.

alphabet soup

salt

concrete

vegetable oil

air

paint

granite

sugar

2. True/False Questions

- a. Drinking water can only be obtained from seawater by distillation. True/False
- b. The distillation of miscible liquids is only possible if the liquids have different boiling points. True/False
- c. Paper chromatography is a physical method for separating mixtures. True/False
- d. Mixtures have fixed melting and boiling points. True/False

3. Fill in the Blanks: Complete the following sentences by Choosing the best separation technique for each situation listed below. Each word can be used once, more than once, or not at all.

filtration crystallization
chromatography electrolysis
distillation

- a. Heterogeneous mixtures are often separated by _____.
- b. Separating sand from water is done by _____.
- c. The sugar in sugar water can be removed by _____.
- d. The separation technique that takes advantage of different boiling points is called _____.
- e. Removing chlorophyll pigment from leaves might be done by _____.
- f. The best way to decompose water into oxygen and hydrogen is by _____.
- g. Crude oil is broken down by heat, vaporized, and allowed to condense into various liquids such as gasoline. This process is called _____.

4. Name the techniques which are suitable for separating the following mixture:

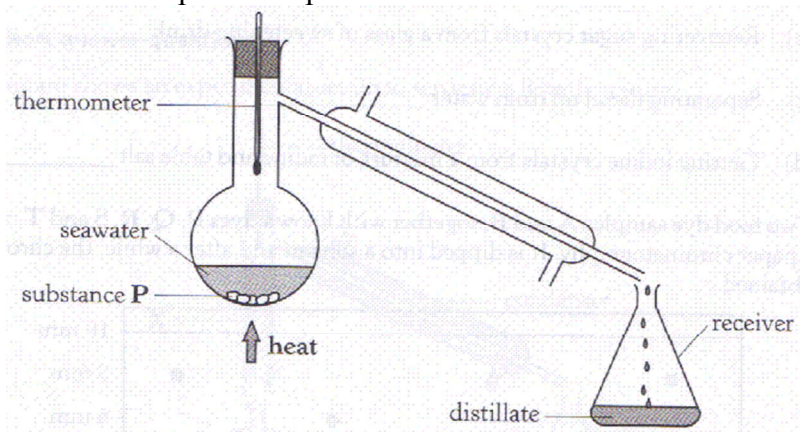
	Situation	Separation Technique(s)
a.	To obtain drinking water from muddy water	
b.	To separate petrol from crude oil	
c.	To remove leaves from a swimming pool	
d.	To obtain pure sugar from a solution	
e.	To determine whether the colouring in a fruit juice is a single substance or a mixture of coloured substance	

5. How would you separate a mixture of iron filings and aluminum filings? _____

6. You are asked to separate sand and sodium chloride. Name the methods needed to carry out the procedure. Explain how you would carry out the procedure to obtain pure sand and sodium chloride back.

7. Could distillation be used to separate air into oxygen, nitrogen, carbon dioxide, argon and so forth? Explain.

8. The following diagram shows a set-up of a simple distillation.



a) Identify the distillate collected in the receiver. How would you determine that the distillate collected is a pure substance?
