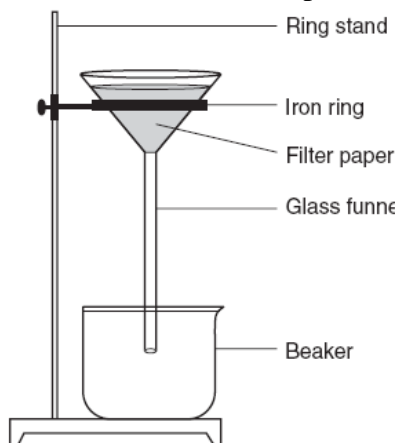


- ___1. Which physical property makes it possible to separate components of crude oil by distillation?
1. boiling point 2. melting point 3. solubility 4. conductivity
- ___2. At room temperature, which type of matter can be separated by chromatography?
1. element 2. compound 3. homogeneous mixture 4. heterogeneous mixture
- ___3. A mixture of salt and sugar is added to water and stirred until all solids have dissolved. Which statement best describes the resulting mixture?
1. The mixture is homogeneous and can be separated by filtration.
2. The mixture is homogeneous and cannot be separated by filtration
3. The mixture is heterogeneous and can be separated by filtration
4. The mixture is heterogeneous and cannot be separated by filtration
- ___4. Recovering the salt from a mixture of salt and water could best be accomplished by:
1. evaporation 2. filtration 3. paper chromatography 3. density determination
- ___5. Which mixture can be separated by using the equipment shown below?



1. $\text{NaCl}_{(\text{aq})}$ & $\text{SiO}_{2(\text{s})}$ 3. $\text{CO}_{2(\text{aq})}$ & $\text{NaCl}_{(\text{aq})}$
2. $\text{NaCl}_{(\text{aq})}$ & $\text{C}_6\text{H}_{12}\text{O}_6_{(\text{aq})}$ 4. $\text{CO}_{2(\text{aq})}$ & $\text{C}_6\text{H}_{12}\text{O}_6_{(\text{aq})}$

- ___6. When a mixture of water, sand and salt is filtered, what passes through the filter paper?
1. water, only 3. water and salt, only
2. water and sand, only 4. water, sand and salt
- ___7. The laboratory process of distillation does not involve:
1. Changing a vapor to a liquid 3. Changing a liquid to a vapor
2. Liquids with the same boiling point 4. Liquids with different boiling points
8. At room temperature, nitrogen, hydrogen, and ammonia gases form a mixture in a sealed container. The data table below gives some characteristics of these substances.

GAS	Boiling Point	Melting Point	Solubility in Water
Nitrogen	- 196 °C	- 210 °C	Insoluble
Hydrogen	-252 °C	- 259°C	Insoluble
Ammonia	- 33°C	- 78 °C	Soluble

Briefly describe how to separate the ammonia from hydrogen and nitrogen.