

Gasoline Assignment

- The **modern industrial method** for separating the various parts of crude oil is called:
 - Batch processing
 - Liquefaction
 - Fractional distillation
 - Reforming
- The separation of the fractions in crude oil, by fractional distillation, is based on the fact that...
 - All of the components of the crude have differing boiling points
 - A great deal of the crude must be turned into gasoline
 - Lighter molecules boil at lower temperatures
 - (a) and (c) are true
 - heavier molecules will head towards the top of the tower
- Which one of the following **will not help to improve the quality** of gasoline?
 - Reforming
 - Alkylation
 - Cracking
 - Polymerization
- Which of the following processes are used to join small molecules together into longer molecules suitable for gasoline?
 - Reforming
 - Alkylation
 - Cracking
 - Polymerization
- Which chemical was used to **improve the octane rating of gasoline**, but now is being phased out because of environmental concerns?
 - Tetramethyl iron
 - Tetraethyl lead
 - Chromium dioxide
 - Benzoylperoxide
- What process can be used to **break down hydrocarbons of intermediate length** to create hydrocarbons that can be used to make gasoline?
 - Platforming
 - Fractionation
 - Catalytic cracking
 - Alkylation
- How can the **octane rating of a gasoline be improved** without using lead?
 - More decane can be added to the gas
 - The gasoline can be craked into smaller molecules
 - Straight chain molecules can be reformed into branched chain molecules
 - The branched chains must be straightened to allow a better mix to occur
 - Chromium dioxide can be used instead of lead compounds
- Which of the following chemicals would come **out of the top of a fractional distillation tower**?
 - Octane
 - Ethane
 - Coal tar
 - Kerosene

Answer Key

1. c
2. d
3. d
4. a
5. b
6. c
7. c
8. b