

# SUDOKU FRACTIONS

NAME \_\_\_\_\_

Crude oil is used to make products such as gasoline, aviation fuel and diesel. Crude oil is made up of hydrocarbons (molecular chains of hydrogen and carbon) that are of different lengths, arrangements and boiling points. Through a process called fractional distillation, the various hydrocarbons are separated out to form different parts called **fractions**. These fractions, in turn, are converted to gasoline and other useable products.

In the distillation process, the crude oil is heated to high temperatures. As the crude oil is heated, the oil transforms into a vapor gas and rises

through a distillation column. As the vapors pass through different trays in the column, they begin to cool and turn from a gas into a liquid. Depending on the particular type (molecule length and arrangement) of hydrocarbon, it will cool at different temperatures and be collected into the various trays.

At the end of the distillation process, the once different hydrocarbons are separated into useful substances such as gasoline. For this reason, fractional distillation is the most important step of the refining process.

Fill in the squares so that each row, column, and 9-square section has the letters F-R-A-C-T-I-O-N-S.

A	O	I		C	N		S	T
R		T	I		A	N	O	
	F	N	T	S		A		R
O	T		N	I	C		A	
	C	S		R	F	I		O
I		F	S				C	N
T	I		F	N	S	C	R	
	R	A			I	O		S
S	N		O		R		F	I

