

Cross-Disciplinary

Fractions of Crude Oil

Read the following paragraph, study the table, and complete the exercises below.

Crude oil is a mixture of thousands of different organic compounds with different properties. Before crude oil can be used, these compounds must be sorted into batches of compounds with similar properties. Each of these batches, or fractions, has specific uses. The table below shows the demand for different fractions of North Sea oil in summer and winter, along with common uses of each fraction.

EXERCISES

DEMAND FOR FRACTIONS OF CRUDE OIL

Fraction	Uses	Summer demand	Winter demand
Refinery gas	Gaseous fuel (bottled gas), chemical production	4%	3%
Gasoline (petrol)	Automobile fuel, chemical production	32%	29%
Kerosene (paraffin)	Heating fuel, jet fuel	12%	6%
Diesel oil	Diesel fuel for trucks, buses, trains, etc.; heating fuel	17%	23%
Residue fuel	Fuel for power stations, ships, etc.; can be distilled further into lubricating oil, waxes, etc.	35%	39%

1. Explain what is meant by the term "fraction" when it is applied to crude oil.

2. What is one likely reason that the demand for diesel oil increases in the winter?

3. Why might the demand for gasoline decrease in the winter months?
