

PAYING AT THE PUMP



Name _____

The gasoline that powers your car has already been through quite a lot by the time it gets to the pump. Gasoline comes from crude oil found deep beneath the Earth's surface and oceans. Once crude oil is discovered, it is piped out of the ground and transported to a refinery to be processed into gasoline, home heating oil, aviation fuel and other products. The price you pay at the pump includes several costs. Distribution and marketing costs include the fees incurred in shipping the gasoline through pipelines from the refinery, and loading it into trucks for delivery to gas stations.

National, state and local taxes are charged at the pump and vary by state and city. Most taxes go toward roads, highways, mass transit and environmental funds. The stages of discovering and converting crude oil to gasoline and moving it to your car's tank all contribute to the price of a gallon of gasoline.

USE THE CHART TO ANSWER THE QUESTIONS BELOW. SHOW YOUR WORK.

2011 Average Retail Price: \$3.45/gallon

Distribution & Marketing (D&M) – 8%

Refining Costs & Profits – 11%

Federal & State Taxes (Taxes) – 12%

Crude Oil – 69%

2015 Average Retail Price: \$2.64/gallon

Distribution & Marketing (D&M) – 19%

Refining Costs & Profits – 25%

Federal & State Taxes (Taxes) – 17%

Crude Oil – 39%

1. How much did each of the four components listed on the chart contribute to the average price in dollars and cents for 2011 & 2015? Complete the chart below.

| | 2011 | 2015 |
|--------------------------|------|------|
| DISTRIBUTION & MARKETING | | |
| REFINING COSTS & PROFITS | | |
| FEDERAL & STATE TAXES | | |
| CRUDE OIL | | |

2. If a person drives a car with a 15-gallon tank, how much less would he or she spend in 2015 to cover the cost of Crude Oil on a full tank than in 2011?

_____ How much less is that as a percentage of the 2011 price for Crude Oil? _____

3. In mid-2011, the price of crude oil rose dramatically. It accounted for 75% of the price of gasoline, which was then selling at \$4.06 per gallon. From that gallon, how much did crude oil contribute to that price in dollars and cents? _____

The cost of crude oil varies with its availability. When it is in large supply, oil prices are lower. When it is in short supply, it becomes more expensive. The supply of oil is influenced by many factors, such as the rate of oil discoveries and how much oil is in reserve. Demand for crude oil influences prices. As the economies of India, China and developing countries grow their demand for energy increases. In addition, gas prices tend to go up in the summer, partly because people buy more gas for summer road trips, which reduces the supply. Major world events such as hurricanes and political unrest in countries that produce oil can also disrupt the supply of oil and affect the price of gasoline. Several factors combine to contribute to the cost of crude oil and its by-products.

This table shows the weekly price of a regular gallon of gasoline in the late summer travel season of 2015.

| JUL 06 | JUL 13 | JUL 20 | JUL 27 | AUG 03 | AUG 10 | AUG 17 | AUG 24 | AUG 31 | SEP 07 | SEP 14 | SEP 07 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 2.88 | 2.92 | 2.89 | 2.83 | 2.78 | 2.72 | 2.80 | 2.73 | 2.60 | 2.53 | 2.47 | 2.42 |

*Source: Energy Information Administration, Retail Gasoline Historical Prices - www.eia.gov/dnav/pet/pet_pri_gnd_dcus_nus_w.htm

4. What was the average weekly price of gasoline in July? _____ What was the average weekly price in August? _____

5. Where was the greatest difference in cost and by what dollar amount? _____ and _____

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