

Name _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1) What is vapor lock?

2) What is the difference between summer-blend and winter-blend gasoline?

3) What are five octane improvers that may be used during the refining process?

4) What is stoichiometric?

5) What does the $(R + M) \div 2$ gasoline pump octane rating indicate?

6) What is Reid vapor pressure?

Answer Key

Testname: HYBRID4_SHORT4

- 1) Vapor lock is a condition where vapors instead of liquid fuel is in the fuel system and can result in poor engine performance or even a no-start condition.
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- 2) The major difference is the volatility of the gasoline. Winter gasoline needs to have a higher RVP pressure to ignite at low temperatures, whereas summer gasoline required a lower RVP to prevent vapors from forming in the fuel system.
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- 3) Octane improvers added in the refining process include: xylene, toluene, ethanol, methanol, tertiary butyl alcohol (TBA), as well as propane and butane.
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- 4) Stoichiometric is a ratio where all of the fuel is burned with all of the air. The Stoichiometric ratio varies according to the fuel used.
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- 5) The pump octane rating is the average of the fuel measured using the Motor and Research method.
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- 6) The pressure of the gasoline vapor in a closed container measured at 100°F.
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