

Name _____

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

1) What is the definition of horsepower?

2) What are the strokes of a four-stroke cycle?

3) What brands of vehicles use horizontally opposed 4- and 6-cylinder engines?

4) How is the angle between power strokes determined?

5) If an engine at sea level produces 100 horsepower, how many horsepower would it develop at 6,000 feet of altitude?

Answer Key

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- 1) One horsepower was determined to be the power required to move 550 pounds one foot in one second or 33,000 pounds one foot in one minute ($550 \times 60 \text{ seconds} = 33,000 \text{ pounds per minute}$).
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- 2) The four strokes of a four-stroke engine include intake, compression, power, and exhaust.
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- 3) This style of engine is used in Porsche and Subaru engines, and is often called the boxer or pancake engine design
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- 4) To find the angle between power strokes of an engine, divide 720 by the number of cylinders.
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- 5) An engine loses 3% of its power for each 1,000 feet above sea level. Therefore, at 6,000 feet, an engine would lose 18% ($3 \times 6 = 18$) or 18 hp. Therefore, if an engine develops 100 hp at sea level, that same engine will produce 82 hp when operating at 6,000 feet altitude.
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