

Name \_\_\_\_\_

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

1) What are the various parts of a tire and how a tire is constructed?

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2) What is meant by the aspect ratio of a tire?

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3) What is the difference between wheel back spacing and offset?

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4) What are the three major areas of the Uniform Tire Quality Grading System?

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5) What are the factors that should be considered when purchasing tires?

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## Answer Key

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- 1) The parts of a tire include the body and belt plies, bead, sidewall, inner liner, and tread rubber. A tire builder assembles the inner liner and body plies around the beads before assembling it together with the belt and tread. After the tire is assembled, it is placed in a press where high temperature and chemical reaction cure the rubber, and the sidewall and tread designs are formed.  
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- 2) The aspect ratio is the percent of the height of the tire from bead to tread to the cross-sectional width of a tire. A 70 series (70% as high as it is wide) will ride smoother than a 50 series tire because the sidewalls are higher and can better absorb road shocks and bumps. The shorter sidewall height of a 50 series tire, however, provides a stiffer, better handling tire.  
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- 3) Back spacing, also called rear spacing or backside setting, is the distance between the back rim edge and the wheel center section mounting pad. Offset is a very important variable in wheel design. If the center section (spider) is centered on the outer rim, the offset is zero.  
[Page Ref: 1350-1351](#)
- 4) The three major areas of the uniform tire quality grading system include tread wear, traction, and temperature resistance.  
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- 5) Tire purchasing guidelines include: purchase the same type and size of tire and no wider or narrower than 10 mm from the original. It is best to purchase all four tires at the same time so that rotating the tires is not a problem.  
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