

Name \_\_\_\_\_

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

1) When the driver turns the steering wheel, how is the motion transferred to the front wheels through a conventional steering gear

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2) What adjustments are possible on a conventional recirculating-ball-type steering gear?

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3) What adjustments are possible on a typical rack-and-pinion steering gear?

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4) Why are recirculating balls used in the recirculating ball steering gear?

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5) What components are included in a typical steering column assembly?

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## Answer Key

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- 1) When the driver rotates the steering wheel, the steering shaft rotates, which rotates the input gear inside the steering gear. The worm gear inside the steering gear then moves the sector gear, which is part of the pitman arm, which in turn is connected to the steering linkage.  
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- 2) Worm bearing preload and sector lash are two of the adjustments possible on a conventional ball-type steering gear.  
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- 3) Rack support and pinion bearing preload can be adjusted on a rack and pinion steering gear assembly.  
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- 4) Recirculating balls are used in a recirculating ball steering gear to reduce friction.  
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- 5) A typical steering column includes the steering shaft, universal joint, flexible coupling, and column cover.  
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