

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Technician A says that spur gears are quieter than helical gears. Technician B says that helical gears produce greater thrust forces than spur gears. Which technician is correct? 1) _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician

- 2) The transmission is in first gear, which has a 2.5:1 ratio, and the rear axle has a ratio of 2:1. The overall gear ratio is _____. 2) _____
 - A) 4.5:1
 - B) 5:1
 - C) 2:1
 - D) 2.5:1

- 3) Gear ratios can be used to _____. 3) _____
 - A) Increase speed
 - B) Increase torque
 - C) Reverse direction
 - D) All of the above

- 4) Which type of gear may be found in a rear-wheel-drive axle? 4) _____
 - A) Hypoid
 - B) Spiral bevel
 - C) Spur
 - D) Helical

- 5) What is used to transfer torque to all four wheels? 5) _____
 - A) Four driveshafts
 - B) A transfer case or power transfer unit
 - C) Four differentials
 - D) All of the above

- 6) A differential _____. 6) _____
 - A) Provides the gear reduction needed in the drive axle
 - B) Drives two wheels at different speeds
 - C) Both A and B
 - D) Neither A nor B

- 7) At a constant vehicle speed, which gear ratio will result in higher engine RPM? 7) _____
 - A) 3:1
 - B) 2:1
 - C) 1:1
 - D) 0.75:1

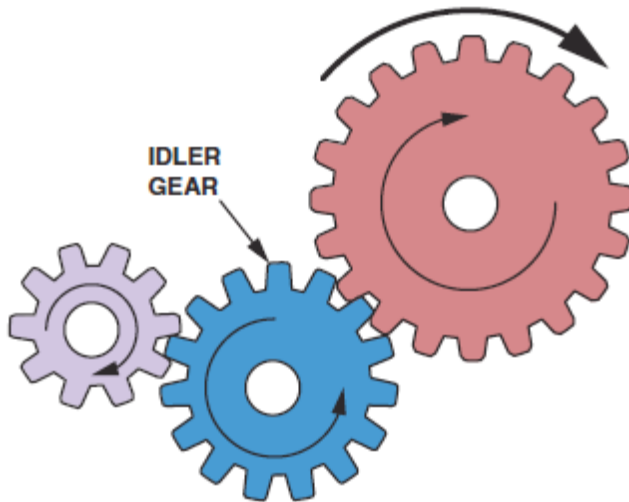
8) A differential is normally composed of _____ gears.

- A) Four or more
- B) Two
- C) Two equal sized
- D) Shaft

8) _____

9) What is the ratio of this gear set (small gear driving)?

9) _____



- A) 2:1
- B) 1.5:1
- C) 3:1
- D) 3.5:1

10) Technician A says that a helical gear is stronger than a spur gear. Technician B says that a helical gear is noisier than a spur gear. Which technician is correct?

10) _____

- A) Technician A only
- B) Technician B only
- C) Both technicians
- D) Neither technician

Answer Key

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1) B

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2) B

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3) D

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4) A

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5) B

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6) B

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7) A

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8) A

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9) A

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10) D

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