



## Curriculum Pre/Post Test Unit 8

1. Which of the following is not a method of transferring power from a shaft to a gear?
  - A. Shaft with a Keyway
  - B. Spline Shaft
  - C. Hexagonal Shaft
  - D. E-Clip Shaft
2. What style shaft does the VEX Design system use?
  - A. Keyed
  - B. Round
  - C. Square
  - D. Hexagonal
3. Spur gears transfer motion between two \_\_\_\_\_ shafts.
  - A. Perpendicular
  - B. Parallel
  - C. Collinear
  - D. Intersecting
4. Bevel gears are a \_\_\_\_\_ shape.
  - A. Conical
  - B. Spherical
  - C. Cylindrical
  - D. Hexagonal
5. Crown gears are a type of \_\_\_\_\_ gear.
  - A. Bevel
  - B. Spur
  - C. Helical
  - D. Worm
6. Worm gears transfer power between \_\_\_\_\_ shafts.
  - A. Parallel
  - B. Perpendicular
  - C. Collinear
  - D. Intersecting



7. Which of the following gears is not part of a planetary gear set?
  - A. Planet
  - B. Sun
  - C. Ring
  - D. Helical
  
8. What is the name of the gear that mates with a pinion gear?
  - A. Planetary
  - B. Spur
  - C. Rack
  - D. Helical
  
9. What is the diametral pitch of a VEX spur gear?
  - A. 16
  - B. 20
  - C. 24
  - D. 36
  
10. If a 12 tooth input spur gear is spinning at 100 RPM, what is the output speed of the 60 tooth gear it is meshed with?
  - A. 20 RPM
  - B. 40 RPM
  - C. 250 RPM
  - D. 500 RPM
  
11. If there are three spur gears meshed together in a row, what is the middle gear called?
  - A. Input
  - B. Output
  - C. Idler
  - D. Driven
  
12. If you want the input gear to spin in the same direction as the output gear you must use a \_\_\_\_\_ gear.
  - A. Spur
  - B. Bevel
  - C. Driven
  - D. Idler



13. What is the final gear reduction of a compound gear reduction of 36 to 12 for the first stage and 60 to 12 for the second stage?
- A. 0.067
  - B. 0.533
  - C. 8
  - D. 15
14. \_\_\_\_\_ are used for mechanical power transmission over long distances
- A. Spur Gears
  - B. Helical Gears
  - C. Planetary Gears
  - D. Chain and Sprockets
15. Mechanical power transmission ratios for Belts and Pulleys systems are calculated using \_\_\_\_\_.
- A. Belt Length
  - B. Pulley diameters
  - C. Pitch Length
  - D. Number of teeth