



2004 State Competition

Contestant # _____

FFA Agricultural Mechanics Contest Contestant Name _____

University of Missouri

Chapter _____

50 points

Repair and Maintenance

Problem Solving Portion of Repair and Maintenance

The chain and sprocket diagram on the next page represents a drive system found on PTO driven equipment. In this situation, the driver sprocket has 13 teeth and will be turning at 540 RPM. The driven sprocket has 20 teeth.

Questions: (2 points each)

1. Will the driven sprocket turn faster or slower than the driver? _____
2. What mathematical equation is used to determine RPM of a sprocket?
3. What RPM is the driven sprocket turning?
4. Which tool should be used to remove the sprocket if it were seized onto a shaft?
 - a. A
 - b. B
 - c. C
 - d. D

For the bolts labeled 5 – 7 determine the size and indicate which size wrench should be used (2 points).

5. Bolt Size _____ Wrench size _____

6. Bolt Size _____ Wrench size _____

7. Bolt Size _____ Wrench size _____

