



**2006 State Competition**  
**FFA Agricultural Mechanics Contest**  
**University of Missouri**  
**50 points**

**Contestant #** \_\_\_\_\_  
**Contestant Name** \_\_\_\_\_  
**Chapter** \_\_\_\_\_

## Repair & Maintenance

Identify the following tools from the 15 labeled, 2 points each.

Write the letter of the corresponding tool in the space provided

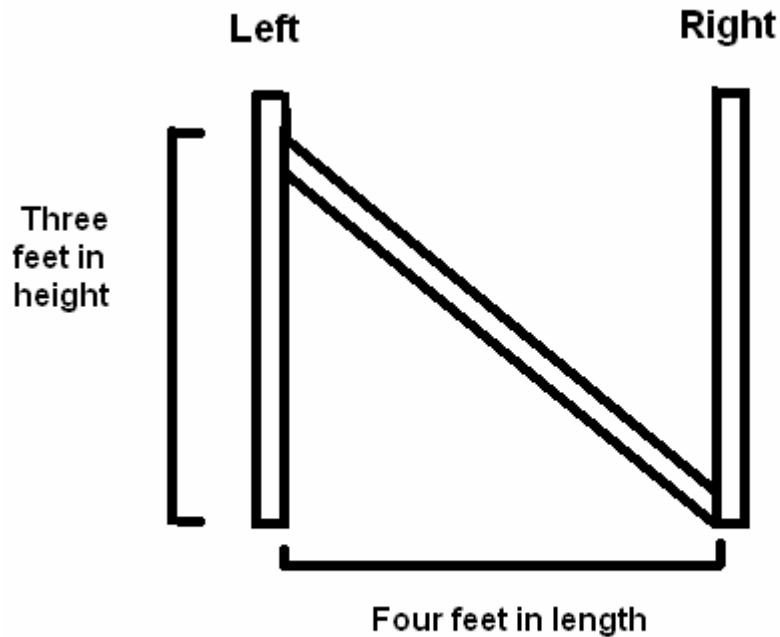
Tool	Proper Letter	1 pt	-Working Condition?	1 pt
1. Dial Indicator	_____	Yes	No	
2. Outside Micrometer	_____	Yes	No	
3. Center Punch	_____	Yes	No	
4. Flat screwdriver blade	_____	Yes	No	
5. Router Bit	_____	Yes	No	
6. Grinding Wheel Dresser	_____	Yes	No	
7. Curved Claw Hammer	_____	Yes	No	
8. Ripping Hammer	_____	Yes	No	
9. Phillips screw driver blade	_____	Yes	No	
10. Cross-cut saw	_____	Yes	No	
11. Steel Square	_____	Yes	No	
12. External Gear Puller	_____	Yes	No	
13. Rip Saw	_____	Yes	No	
14. Scratch Awl	_____	Yes	No	
15. Jacob's Chuck	_____	Yes	No	

Evaluation Criteria:

Brace is cut to proper length: \_\_\_\_\_/8  
Left cut angle is accurate: \_\_\_\_\_/2  
Right cut angle is accurate: \_\_\_\_\_/2  
Multiple Choice Activity Questions: \_\_\_\_\_/6  
Tool ID Points: \_\_\_\_\_/30  
Shop Safety: \_\_\_\_\_/2  
**Total Points: \_\_\_\_\_/50**

**Scenario:** You have been asked to replace a fence end post brace that was inadequate for the load placed upon it by the stretched fence. Your task is to determine the brace length, and angles in order to cut both ends of the brace. (14 points)

Using the paper provided as an outline for the brace, cut the brace to the proper length and angle. Put your name and contestant number on the paper that you cut and hand it in to a contest official.



Multiple Choice Activity Questions: (2 points each)

1. On which side will the fence end?
  - A. Left
  - B. Right
2. How should the brace wire component be applied?
  - A. From Top Left to Bottom Right
  - B. From Top Left to Top Right
  - C. From Bottom Left to Bottom Right
  - D. From Bottom Left to Top Right
3. How should the brace wire component be applied if the brace post was set horizontally?
  - A. From Top Left to Bottom Right
  - B. From Top Left to Top Right
  - C. From Bottom Left to Bottom Right
  - D. From Bottom Left to Top Right