

2001 State Competition
FFA Agricultural Mechanics Contest
University of Missouri
50 points

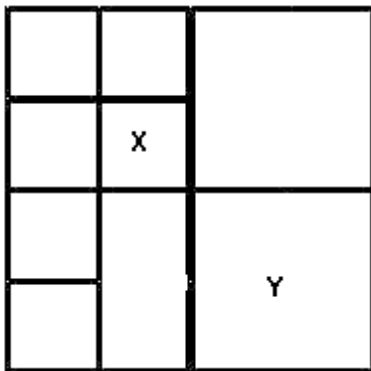
Contestant # _____
Contestant Name _____
Chapter _____

Soil and Water

2 Points Per Question for 1-10

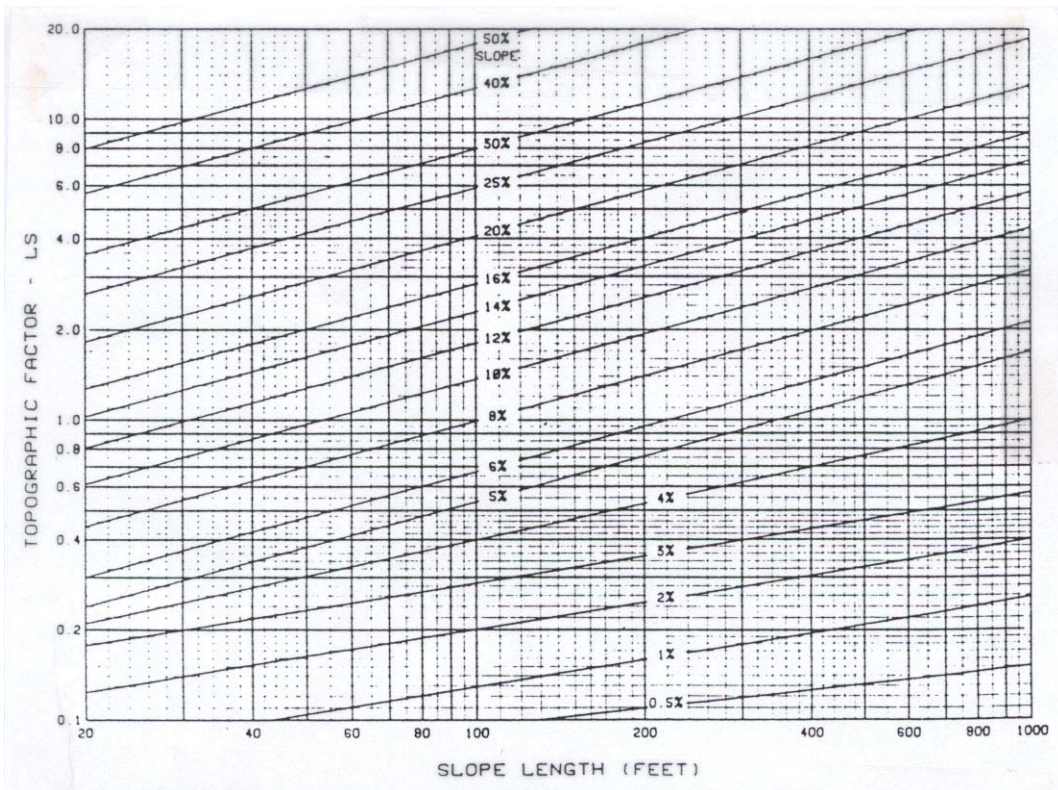
1. The legal land description for the area designated by **X** is:
- SE $\frac{1}{4}$, NE $\frac{1}{4}$, Sec. 23, Town. B
 - SW $\frac{1}{4}$, NW $\frac{1}{4}$, Sec. 23, Town A
 - SE $\frac{1}{4}$, NW $\frac{1}{4}$, Sec. 23, Town A
 - SE $\frac{1}{4}$, NW $\frac{1}{4}$, Sec. 23, Town B

Township A, Section 23



2. How many Acres are in the area designated by **Y** :
- 320 Acres
 - 160 Acres
 - 640 Acres
 - 140 Acres
3. The rear chainman is holding three pins, the rear chainman calls "48", the head chainman calls out ".64", the surveyors are using an add tape. How many total feet have they measured?
- 148.64 ft
 - 147.47 ft
 - 248.64 ft
 - 348.64 ft

4. A surveyor uses a Gunter's chain and measures 2 full lengths. What is the total distance measured.
- 132 ft
 - 66 ft
 - 100 ft
 - 200 ft
5. Using the chart provided, given LS factor of 7.0 and 30% slope, determine the slope length.
- 79 ft
 - 76 ft
 - 82 ft
 - 100 ft



6. How many pins or arrows are in a set?
- 10
 - 11
 - 12
 - 13

Surveyor Instrument Identification

7. **What is the item labeled #1 ?**
 - a. **Hand Level**
 - b. **Wye Engineers Level**
 - c. **Field Rod**
 - d. **Dumpy's Engineers Level**

8. **What is the item labeled #2 ?**
 - a. **Yard Stick**
 - b. **Philadelphia Leveling Rod**
 - c. **Pins**
 - d. **Range Pole**

9. **What is the item labeled #3 ?**
 - a. **Chains**
 - b. **Measuring Tape**
 - c. **Steel Tape**
 - d. **Measuring Wheel**

10. **What is the item labeled #4 ?**
 - a. **Hand Level**
 - b. **Wye Engineers Level**
 - c. **Field Rod**
 - d. **Dumpy's Engineers Level**

6 Points Per Question for 1-5

Field Activity

11. Using the engineers level, determine the distance to the rod?
 - a. 50ft
 - b. 55ft
 - c. 47ft
 - d. 53ft

12. The two range poles are 100 feet determine the distance between flags A and B by pacing.
 - a. 105ft
 - b. 110ft
 - c. 95ft
 - d. 90ft

13. Using the hand level provided, find the stake that is on the same contour as stake C.
 - a. D
 - b. E
 - c. F
 - d. G

14. Determine the percent slope between H and I if they are 50 feet apart. (Write in answer)
 - a. 1
 - b. 3
 - c. 5
 - d. 7

15. Find the area in square feet of the right triangle J-K-L. Side J-K is 50 feet. Based on your pacing estimate of side K-L determine the area of the right triangle.
 - a. 1000 square feet
 - b. 2000 square feet
 - c. 3000 square feet
 - d. 4000 square feet