

Name _____ School _____ Contestant Number _____

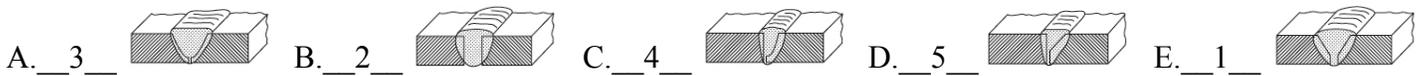
2015 Cowboy Classic - Agricultural Technology and Mechanical Systems Structural Systems-Welding Skill

Your summer job is working with your FFA advisor on his cow calf operation. This job has helped you improved your skills as a caregiver of the cattle as well as maintaining their nutrition. Your FFA advisor has decided to challenge your skills in welding. Your job at the end of summer is to increase the number of pens for the upcoming season of calves. Along with your FFA Advisor you have planned to add 6 more full sized pens to your feedlot just south of the existing pens. The FFA advisor has asked you to build the fence out of continuous fencing so that the fences are strong and hold up for a long time. Before starting this project your FFA advisor has asked you to practice on pieces in the shop similar to what you will be using to construct the pens with. **Using the supplies provided of 1 ½ inch round pipe, weld a continuous pass to join the 2 pieces of metal. Do not adjust the polarity from its setting for this activity.**

The welding rod chosen for this application is the Lincoln E7018 1/8" X 14" rod. List the ideal amperage range for this rod in each of these applications.

AC _____ 105-150 _____ Amps DCEP _____ 100 - 140 _____ Amps

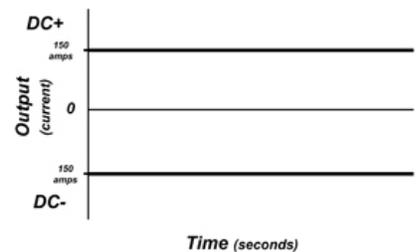
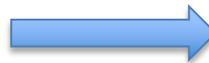
1. Match the correct answer choice to the welding symbols provided.



Welding Symbols Answer Choices	
1	Single V butt / groove weld
2	Square butt groove weld
3	Single U butt groove weld
4	Single J butt groove weld
5	Single bevel butt weld with broad root face

2. What polarity type commonly used in welding practices is best reflected in the picture?

Answer: _____ DC _____



**LINCOLN
ELECTRIC**

3. Provide the correct answer from the choices provided. (Answers may be used more than once)

1. B	AC Current produces a more evenly distributed metal transfer than DC	A	True
2. C	Which electrode is recommended for vertical and overhead welding positions?	B	False
3. D	Which electrode allows for weld metal to freeze rapidly while the slag remains fluid?	C	Fast freeze
4. F	Which polarity is used with High cellulose sodium electrodes?	D	Fill freeze
5. F	Which polarity is used with Low Hydrogen sodium electrodes?	E	AC
		F	DC+

Criterion	Points Possible	Points Earned	Safety	Points Earned
Quality of weld	8		2	
Questions	20 (2 points ea.)			