

Arizona SkillsUSA

Region 4

Thursday, February 23rd, 2022

**Yavapai Community College Career and
Technical Education Center**

Prescott, Arizona

Welding Contest (Individual)

Information, Drawings etc...

Distributed to All Participating Schools

Subject to Change

To: SkillsUSA Instructors & Students

From: Samuel Colton Sr. Region 4 Welding Competition Chair

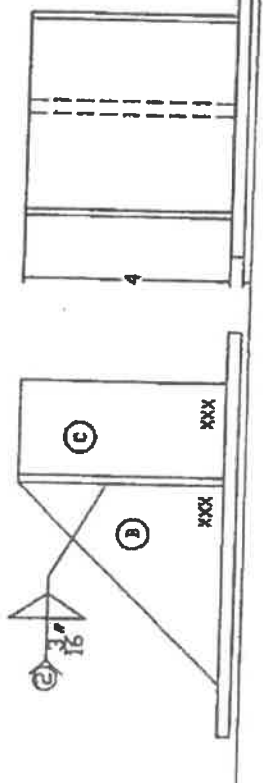
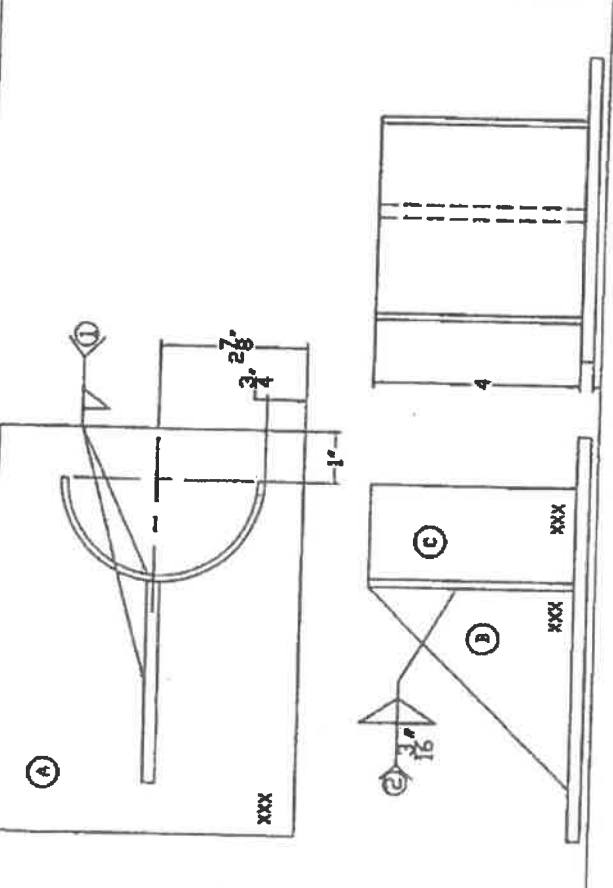
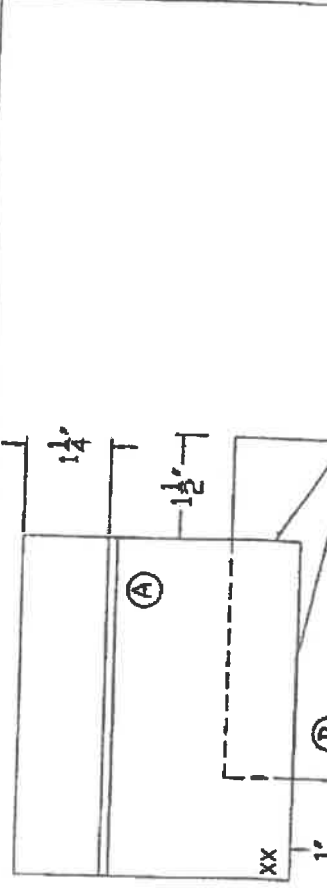
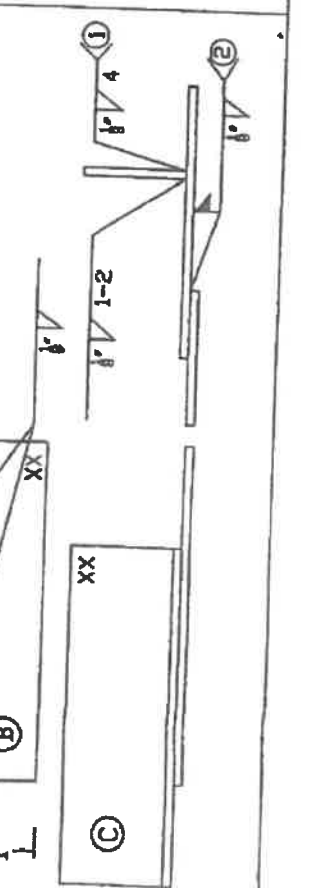
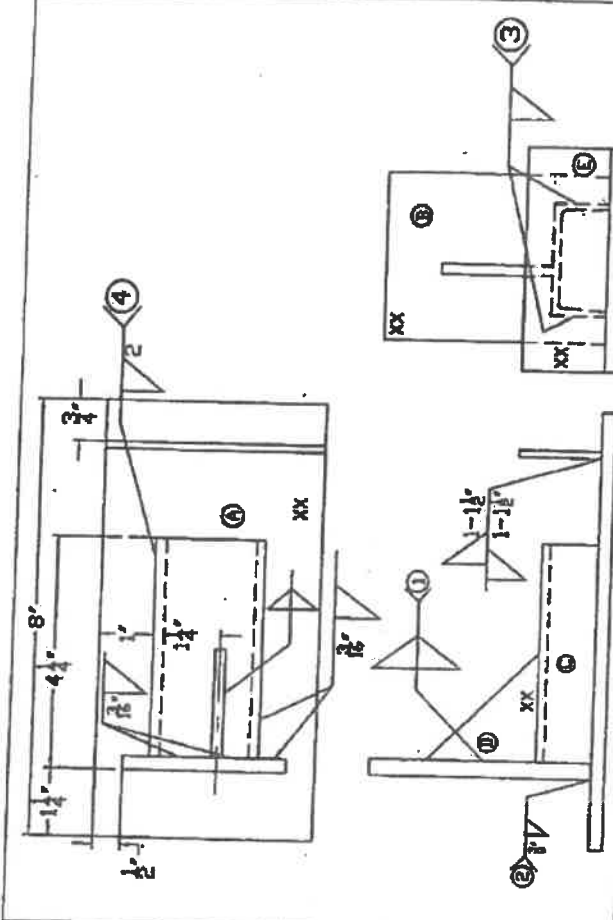
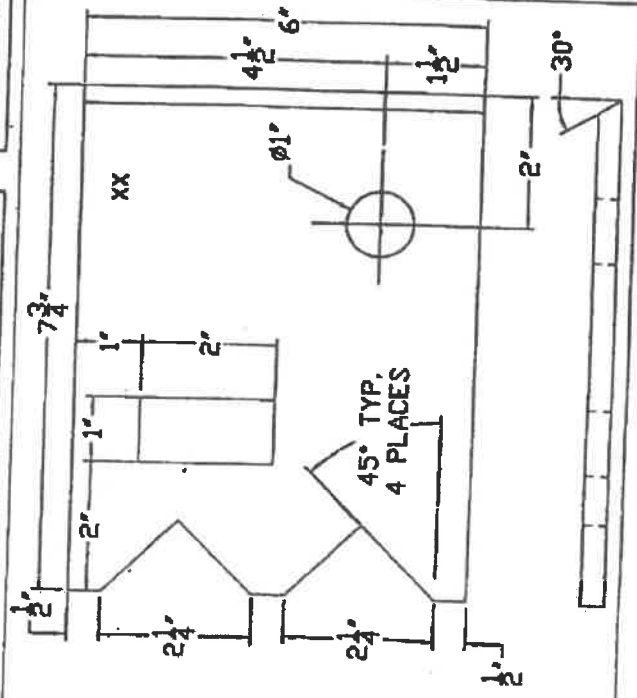
Greetings and congratulations on your decision to be a SkillsUSA Region 4 welding competitor. The contest information follows this letter. The contest is not a secret. We fully expect schools to cut and practice these weldments and make other preparations for the contest in Prescott.

Students are required to provide appropriate PPE to compete in for each process.

Note: Students are required to wear an over the ankle work boot. No tennis shoes. Steel toes are not required.

All schools and competitors are responsible to bring the full bill of materials cut to the dimensions specified on the drawings for each of the four welding process skills challenges. You will note that the processes selected for regionals are OFC, SMAW, GMAW, and GTAW. The contest schedule is outlined below.

Rotations (25 minutes)	Start time 9:00 am	We will start sooner if possible. Total contest capacity is 20 students rotating between the four weld process skills challenges.		
	9:00 to 9:15 am	Welcome, orientation to the booth rotations and judge's stations.		
	9:15 to 9:30 am	Lay out contest materials		
Rotation One (1)	9:30 am to 9:55 am	Welding Begins.		
	9:55 am to 10:00 am	Students take weld to judges and move to next station.		
Rotation Two (2)	10:00 am to 10:25 am	Welding Begins		
	10:25 am to 10:30 am	Students take weld to judges and move to next station.		
Rotation Three (3)	10:30 am to 10:55 am	Welding Begins		
	10:55 am to 11:00 am	Students take weld to judges and move to next station.		
Rotation Four (4)	11:00 am to 11:25 am	Welding Begins		
	11:25 am to 11:30 am	Students take weld to judges and move to next station.		
	11:30 am to 12:00 pm	All students will help with the cleanup and restoration of the YC welding lab. Students will remain in the contest area until excused.		
Judging Completion	12:00 pm to 12:15 pm	Judges will tally all the scores, complete and sign the rankings with the top three students to be announced at the awards ceremony.		



SHIELDED METAL ARC WELDING SCORE SHEET

CONTESTANT # _____

LAYOUT AND TACK UP:

CONTESTANT #'s IN PLACE _____ (10)
ACCURATE MEASUREMENTS _____ (10)

EQUIPMENT SETUP AND ADJUSTMENT _____ (10)

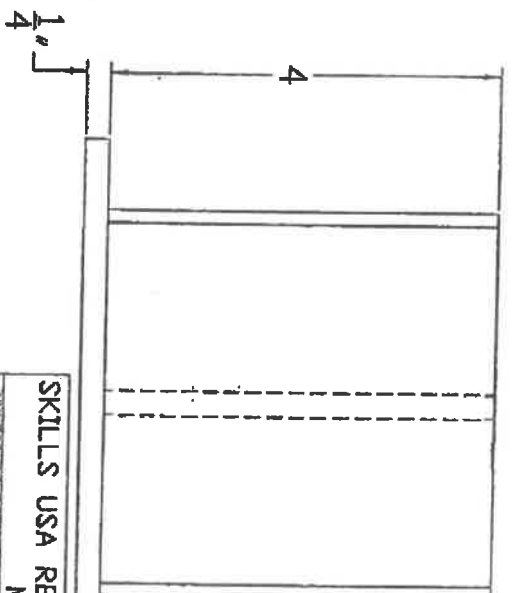
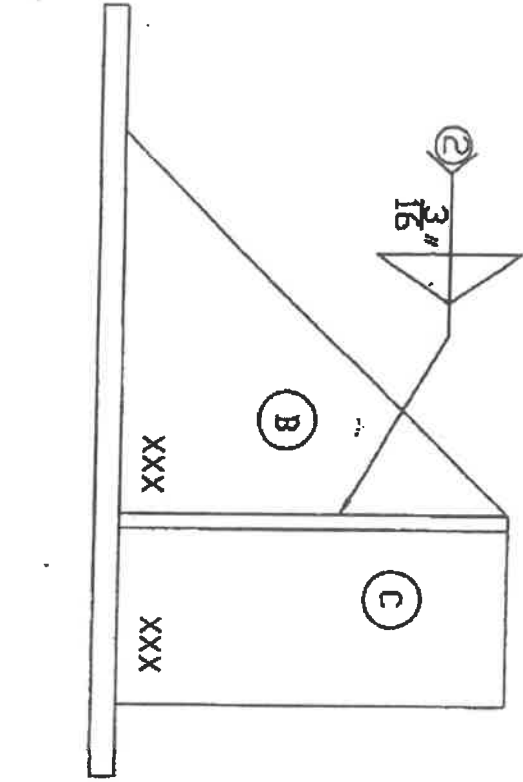
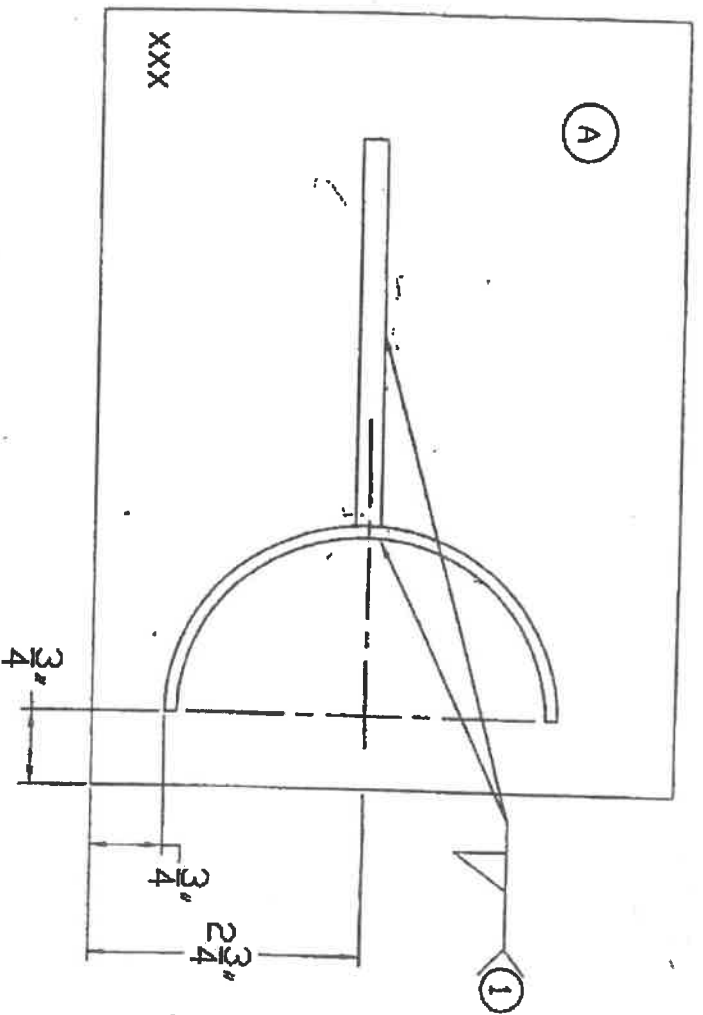
BEAD APPEARANCE:

VERTICAL WELDS _____ (15)
7018 LAP JOINT _____ (15)
6011 LAP JOINT _____ (15)
7018 ALL AROUND _____ (15)

OVERALL APPEARANCE (CLEANED?) _____ (10)

SAFETY INFRACTIONS (UP TO -5 POINTS) _____

TOTAL _____ (100)



QTY	MATERIAL	PART #
1	1/2" X 6" X 8" HRS	A
1	1/2" X 4" X 4" HRS	B
1	1/2" X 4" X 4" SCH 40 BL. PIPE	C

1. TACK ALL PARTS TOGETHER IN ANY POSITION, ANY ELECTRODE.

XXX-CONTESTANT # _____

NOTES:

- 2F - E-7018 $\frac{3}{32}$ "
 - 3F - E-6010 $\frac{3}{32}$ "
- VERTICAL UP - ARROW SIDE
 VERTICAL DOWN - OTHER SIDE

SKILLS USA REGION WELDING CONTEST
 MODULE TWO

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

1. ALL WELDS \pm 1/16"

SHIELDED METAL ARC WELDING

SCH 40 BL PIPE

DATE 08/25/07

TEST # A

TEST XX-CONTE

T #

OF 1

GAS METAL ARC WELDING SCORE SHEET

CONTESTANT # _____

LAYOUT AND TACK UP

CONTESTANT #'S IN PLACE _____ (10)

ACCURATE MEASUREMENTS _____ (10)

TACKED PROJECT SHOWN TO JUDGE _____ (10)

BEAD APPEARANCE

THREE PASS FILLET _____ (15)

VERTICAL WELDS _____ (15)

STAGGERED INTERMITTENT WELDS _____ (15)

FILLET WELDS ALONG CHANNEL _____ (15)

OVERALL APPEARANCE (CLEAN?) _____ (10)

SAFETY VIOLATIONS _____ (-5 MAX)

NOTES:

TOTAL _____ (100)

QTY	MATERIAL	PART
1	1 1/4" X 4" X 8" HRS	A
1	1 1/4" X 3" X 4" HRS	B
1	2" X 4" C HRS	C
1	3/16" X 2" X 2" GUSSET HRS	D
1	1/8" X 1 1/2" X 4" HRS	E

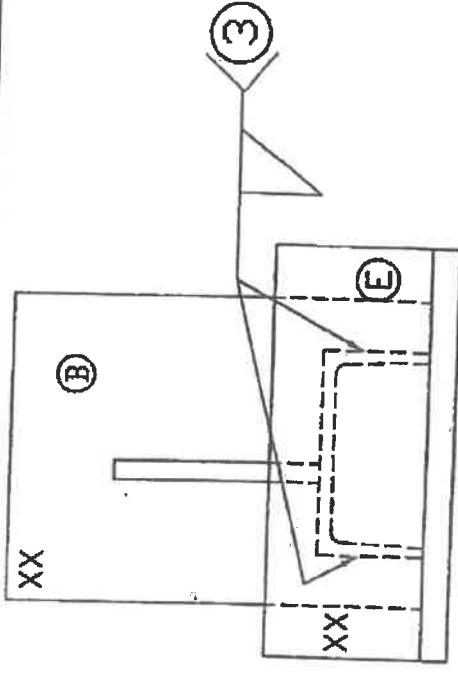
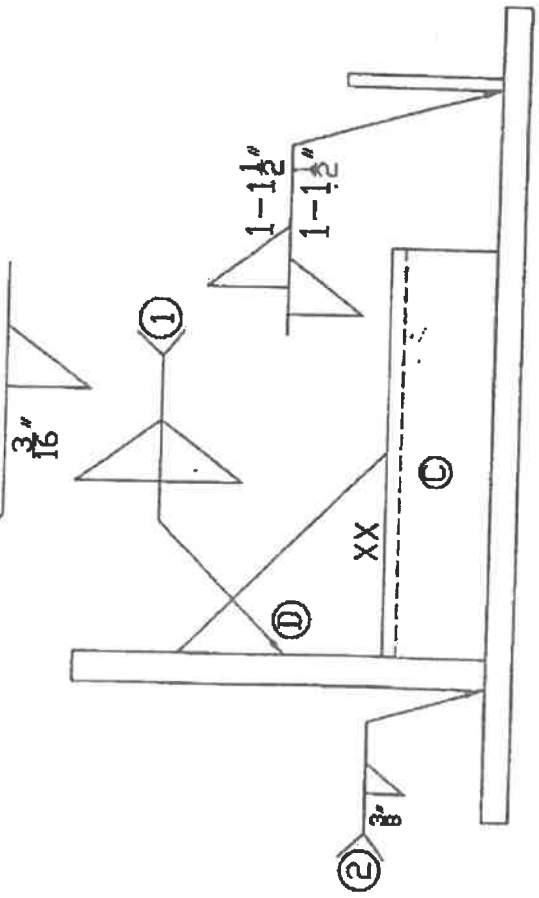
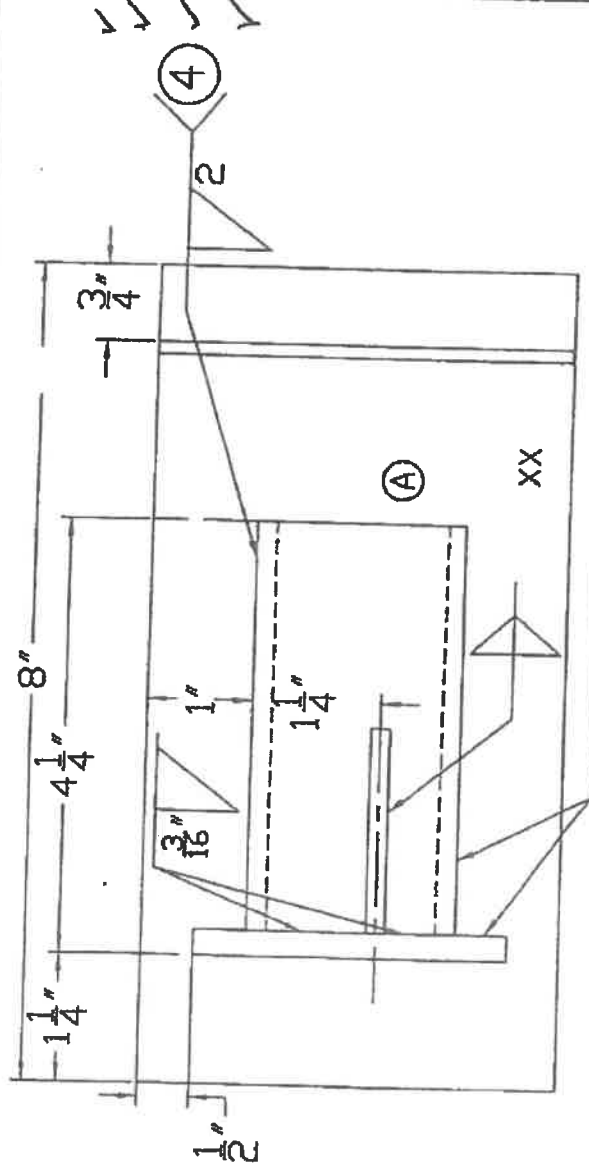
PROCEDURE

- TACK ALL PARTS TOGETHER IN ANY POSITION, ANY ELECTRODE.
- SHOW TO JUDGE FOR EVALUATION
- WELD WITH PLATE "A" FLAT ON TABLE.

XX-CONTESTANT # _____

NOTES:

- ARROW SIDE-VERTICAL UP. OTHER SIDE-VERTICAL DOWN.
- 3 PASSES: 1ST PASS 3", 2ND PASS 2", 3RD PASS 2".
- VERTICAL DOWN
- CENTER WELD ON OTHER SIDE.



SKILLS USA REGION WELDING CONTEST
MODULE THREE

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES TOLERANCES

1. ALL WELDS: 24" MATERIAL HRS

GAS METAL
ARC WELDING

DRAWN YMC 02/25/07

XX-CONTESTANT # _____

GAS TUNGSTEN ARC WELDING SCORE SHEET

CONTESTANT # _____

LAYOUT AND TACK UP:

CONTESTANT #'s IN PLACE _____ (10)
ACCURATE MEASUREMENTS _____ (10)

EQUIPMENT SETUP AND ADJUSTMENT _____ (10)

BEAD APPEARANCE:

4" FILLET (CENTERED?) _____ (15)
INTERMITTENT FILLET _____ (15)
LAP JOINT - TOP SIDE _____ (15)
4F FILLET (NOT DONE) _____ (15)

OVERALL APPEARANCE _____ (10)

SAFETY INFRACTIONS (UP TO -5 POINTS) _____

TOTAL _____ (100)

QTY	MATERIAL	PART
1	1/8" X 4" X 5" 6061 ALUM.	A
1	1/8" X 2" X 5" 6061 ALUM.	B
1	1/8" X 1 1/2" X 5" 6061 ALUM.	C

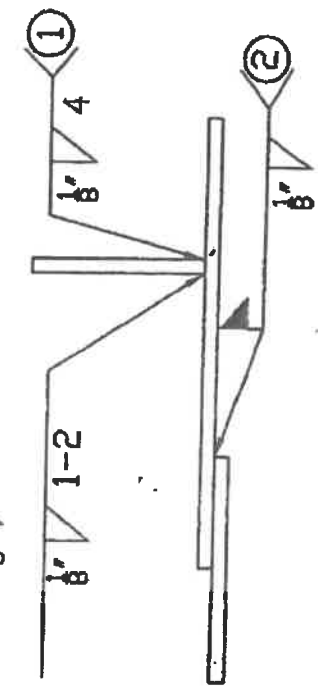
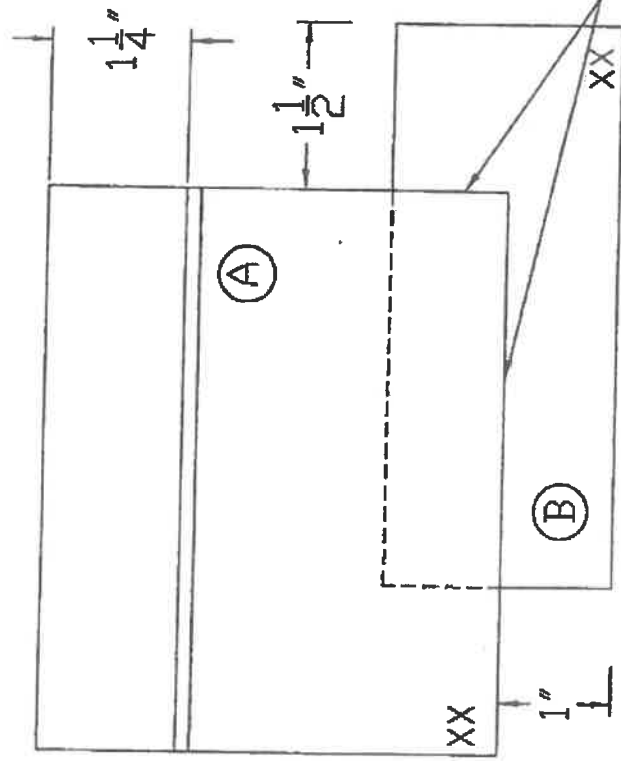
PROCEDURE

- TACK WELD ALL PARTS IN ANY POSITION.
- WELD WITH PLATE "A" FLAT ON TABLE.

XX-CONTESTANT # _____

NOTES:

- CENTER WELD ON THIS SIDE.
- POSITION 4F



SKILLS USA REGION WELDING CONTEST	
MODULE THREE	
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES	
TOLERANCES: 1. ALL WELDS ±1/16"	
MATERIAL	6061 ALUM
DATE	02/25/07
CONTESTANT #	XX-CONTESTANT #

GAS TUNGSTEN
ARC WELDING

OXY-ACETYLENE CUTTING SCORE SHEET

CONTESTANT # _____

LAYOUT:

CONTESTANT #'s IN PLACE	_____	(10)
OVERALL LENGTH	_____	(5)
OVERALL WIDTH	_____	(5)
FEATURE LOCATION	_____	(10)

APPEARANCE:

30 DEGREE BEVEL CUTS	_____	(15)
1" CIRCLE PIERCE	_____	(15)
1" x 2" SLOT CUT	_____	(15)
2 -90 DEGREE NOTCHES	_____	(15)

OVERALL APPEARANCE (CLEAN?)	_____	(10)
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SAFETY INFRACTIONS (UP TO -5 POINTS) _____

TOTAL _____ (100)

right edge

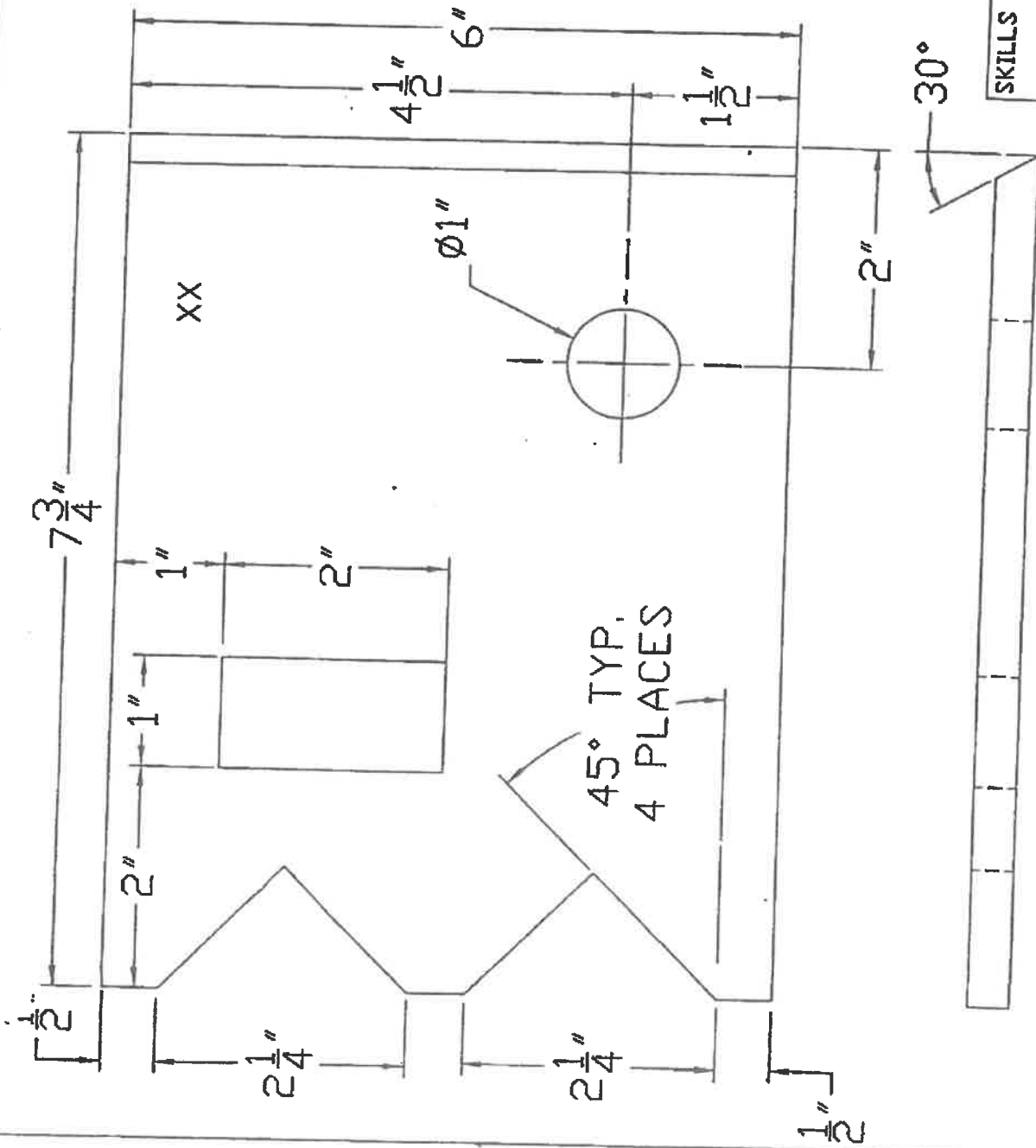
MATERIAL

1 3/8" X 6" X 8" HRS

PROCEDURE

1. LAYOUT AND MAKE ALL CUTS AS PER PLAN.
2. HAND TOOLS ONLY FOR CLEAN-UP, NO POWER TOOLS.

XX-CONTESTANT # _____



SKILLS USA REGION WELDING CONTEST
MODULE ONE

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

TOLERANCES
1. ALL CUTS ±.015"

MATERIAL HRS

DRAWN YMC 02/25/07

OXY-ACETYLENE CUTTING TEST

XX-CONTESTANT # _____