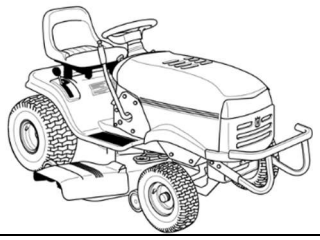
WEST VIRGINIA STATE FFA
COMPACT LAWN TRACTOR ORERATING CONTEST
Middle School Division

Scanton	Universal Form C #705C-1
Committee:	
Chair: Seth Neal	Northeast – Chris VanDyne
Eastern – Cody Dent	Northwest – John Smith, Kari Brown, Wendy Knopp
Central – Nick Cox	Southeast – Shelby Adkins
Northcentral – Gene Hovatter	Southwest – Tim Kidwell



Annual meetings will be held after the State Contest is held. Any questions, comments, or concerns can be addressed at this meeting.

EVENT PURPOSE AND OBJECTIVE:

Encourage youth to:

1. Develop leadership character and good citizenship
2. Develop skills and attitudes necessary to safely operate tractors and other equipment.
3. Practice basic and routine tractor care, repair, and maintenance.
4. Demonstrate their knowledge and skill in the areas of lawn care, business management, and tractor operation

EVENT RULES AND REGULATIONS:

1. Any student which is enrolled in agricultural education and is an FFA member is eligible to participate. This includes 7-8 grade students. Three students from each region may participate in the state event. State winners who have competed in the tractor operations' contest in previous years are not eligible to compete.
2. Appropriate Dress-Comfortable shirt and pants, and work shoes/Boots.
3. **Any contestant who does not report on time *(without prior arrangement)* shall be disqualified!**
4. Only members with previous tractor driving experience will be allowed in the contest.
5. **Each contestant must complete all events.**

Use of Technology in WV CDE and LDE events

1. The use of all electronic devices are prohibited once the career development events starts. If an event requires the use of calculators, the event coordinator will provide exact specifications on the type(s) of devices (including functions) that will be permitted.
2. If a contestant is observed using an electronic device during a contest **(student has his/her Scantron in hand),** the group leader will record the student's name, school and contestant number and give it to the contest coordinator and/or the results tabulator. This individual will be **disqualified** from the contest.

EVENT FORMAT/SCORING

1. The contest will consist of four Events, each of which will be scored separately.
   - I. Written Test
   - II. Tools Parts Identification
   - III. Lawnmower Driving
2. Equipment will be provided for each event. All contestants will use the same tractor for each event.
3. All persons other than the judges, the scorers and the contestants will be barred from the contest area during the contest.
4. The Superintendents in charge of this contest will select judges and scorers.
5. In case any situation occurs that is not covered in the rules, the decision of the judges will be final.
6. Meet at the Craft House – **Thursday** at 8 am. Contestants will have time to FAMILIARIZE themselves with the tractors before the contest begins.
7. The contestant with the lowest deductions will be the winner.

EVENT I – *Written Exam*

A. Contestants will have 30 minutes to answer twenty-five (25) multiple choice questions on lawnmower servicing, safe operation, care, and maintenance.

B. The test will include multiple-choice questions.
   a. See Test Bank for example Test Questions
      i. www.wvffa.net/Programs

C. Each question answered incorrectly or left unanswered will be valued at four (4) points.

EVENT II – *Parts Identification*

A. Each contestant will identify mechanic tools and tractor parts from a gas or diesel tractor. A total of 30 tools and parts will be identified. They may include a torque wrench, open-end wrench, flywheel, piston, or starter etc. Contestants will choose from a bank of answers.
B. Items used for identification will come from the Lawn Tractor Identification sheet in this packet
C. Each correct answer missed or left unanswered will be valued at four (4) points.

EVENT III – *Lawnmower Driving/Safety*

The following lawnmower operations will be tested:

A. The Lawn Tractor Driving event allows the contestant to maneuver a lawn tractor through an obstacle course around a curb, forward and reverse through and alley, forward to a fixed object and back into a shed.
B. Contestants will have a maximum of eight (8) minutes to navigate the course without penalty. Time will be stopped after ten (10) minutes and deductions will be added
C. Time begins when the lawnmower crosses the start line and stops when the lawnmower is parked and turned **OFF** in the shed**.**
D. **See score card for deductions.**

TIE BREAKERS

A. In the event of a tie in the overall contest, the contestant with the highest driving score will be declared the winner. Second place will be the contestant with the highest problem solving score, while third place will be the contestant with the highest written exam score.

COURSE LAYOUT

1) The contestant should conduct the pre-operation checks necessary for the operation and report these items to the safety judge.
    1. **Judges will expect a verbal response.**
2) The contestant should start and warm up tractor. One signal from the event official contestants are to drive tractor to starting line (rear wheels on line.)
3) Contestant signals official that they are ready to begin (engine should be running brake set and in neutral or park.)
4) Time begins upon signal from the event official and stops when the lawnmower is parked and turned OFF in the shed.
5) The contestant will follow the course outlined by the judge (see attached illustrations.)
    1. Contestant should be prepared for an obstacle to appear at any point on the contest course. If an obstacle appears, the contestant is to stop, prepare lawn tractor for dismount, and remove obstacle before proceeding.
        a Drive the lawn tractor through the obstacle course.
        b Drive along circular curb keeping the mower deck within two inches of the markers.
        c Drive forward through the alley.
        d Drive in reverse through the alley.
        e Drive forward through gate up to the stop stake attempting to stop as close to the stake as possible without hitting the stake.
            (1) **Parking Brake must be set for measurement**
            (2) **Contestant should set parking brake and take hands off steering wheel for Judge and Contestant safety.**
        f Drive in reverse into the shed placing the lawn tractor in the center.
        g Shut off engine (time stops when engine fan stops.)
6) The contestant will be allowed a maximum of eight minutes for each event.
7) **See scorecard for deductions.**

NOTE * CONTESTANTS WILL BE STOPPED BY THE JUDGE WAVING A RED FLAG IF IT IS FELT THAT THE CONTESTANT IS NOT IN FULL CONTROL OF THE TRACTOR AND SAFETY OF THE OPERATOR AND JUDGES ARE JEOPARDIZED! CONTESTANTS WILL RECEIVE AN ADDITIONAL 500 POINT DEDUCTION!**

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Score Sheet – Lawn Tractor Driving Event

Contestant _____ Chapter_____

Pre-starting Check (verbal response to Judges)			**Deductions**
After walk-around and starting tractor			
Failure to check fuel level	____x	25	_____
Failure to check oil level.	____x	25	_____
Failure to observe tire inflation.	____x	25	_____
Failure to observe loose or missing parts.	____x	25	_____
STARTING			
Failure to check neutral position.	____x	25	_____
Failure to disengage clutch while starting engine	____x	50	_____
Failure to use seat belt *(if equipped with ROPS)*	____x	100	_____
OBSTACAL COURSE/CURB			
Stop or interrupt not required by the course	____x	10	_____
Change of direction other than needed	____x	10	_____
Crossed boundaries or lines.	____x	10	_____
Hit marker or stake.	____x	20	_____
Stakes or markers knocked over.	____x	40	_____
Each marker passed when operating outside of the two inches allowed for mowing around the curb	____x	10	_____
ALLEY			
Stop or interrupt not required by the course	____x	10	_____
Distance traveled before stopping (inches)	____x	5	_____
Failure to set brakes.	____x	50	_____
Failure to disengage brakes.	____x	50	_____
Failure to engage clutch gently	____x	25	_____
Skidding or spinning tractor wheels (Scuffing of inside wheel while turning does not Count as a skid. Skid of the front tractor wheel Does not count until the skid equals or is greater Than the width of the tire).	____x	50	_____
Failure to set both brakes before dismounting (Transmission set in park or locked to complete stop before dismounting)	____x	50	_____
Failure to bring tractor to complete stop before dismounting	____x	100	_____
PARKING LAWNMOWER IN SHED/FINISH LINE			
Inches (to the nearest inch) from the stop-stake over. 1 Inch (measured from the most forward part of the tractor)	____x	2	_____
Failure to set parking brake for measurement	____x	100	_____
Inches (to the nearest ½ inch) the tractor is off center in the shed	____x	2	_____
Time in excess of 8 minutes	____x	100	_____
JUDGES OBSERVE AT ALL TIMES DURING ABOVE OPERATIONS			
Failure to ride in seat	____x	100	_____
Riding the clutch: Continuously-	____x	100	_____
Occasionally-	____x	10	_____
Grated gears.	____x	10	_____
Engine stalled or raced.	____x	10	_____
Failure to follow directions.	____x	5	_____
Cell Phone use	____x	100	_____

Subtotal of Deductions _____

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A - Width of tractor plus 4-6 inches

B - 2 times length of tractor

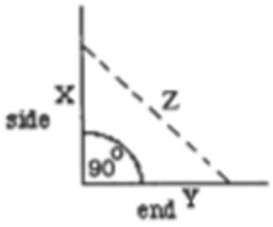
C - Length of tractor plus 3 feet

D - 1 1/2 A

Note: Dashed lines indicate backward travel

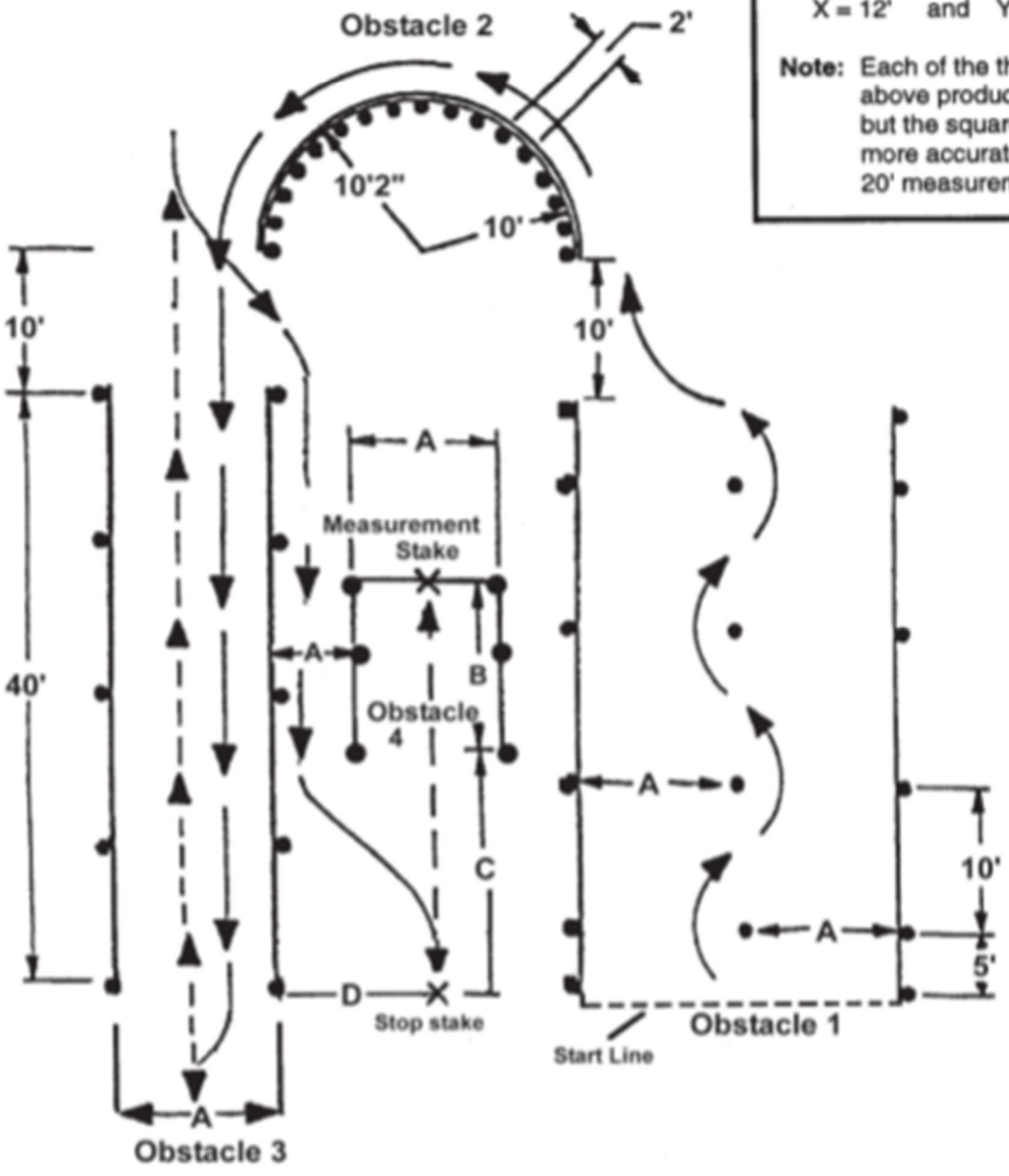
Squaring Obstacles 1, 3, and 4

To square a corner, measure along the side and end of the corner as indicated below.



If X = 3' and Y = 4', then Z = 5'
X = 6' and Y = 8', then Z = 10'
X = 12' and Y = 16', then Z = 20'

Note: Each of the three squaring values above produces a square corner, but the squareness of the corner is more accurate with the 12', 16', and 20' measurements.



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Lawn Tractor Identification Sheet

NAME: _____CHAPTER: _____

Penalty Points: Incorrect _____x 4 = _____

Instructions: Bubble the number tag number on the line left of the most correct name for the part on your scantron.

PARTS and EQUIPMENT

001	Air filter element, dry	**021**	Muffler	**041**	Valve stem
002	Battery cable	**022**	Pin, drawbar	**042**	Wheel lug bolt
003	Battery, 12 volt	**023**	Pin, implement mounting	**043**	Wheel lug nut
004	Bearing, Ball	**024**	U- Joint		
005	Bearing, Needle	**025**	Pulley, Multi Rib	**TOOLS**	
006	Bearing, sleeve	**026**	Pulley Idler (tightener)	**044**	Combo Wrench
007	Bearing, tapered roller	**027**	Oil Dipstick	**045**	Flat head
008	Belt, Multi Rib	**028**	Oil Drain Plug	**046**	Gage, spark plug gap
009	Blade, rotary mower	**029**	Rotary Blade Adapter	**047**	Gage, thickness or feeler
010	Chains, roller	**030**	R.O.P.S.	**048**	Phillips
011	Clutch pedal	**031**	Sprocket	**049**	Torques
012	Fuse	**032**	Starting Safety Interlock	**050**	Spark Tester
013	Gear	**033**	Tie Rod	**051**	Valve Spring compressor
014	Heat Exchange	**034**	Tire Tube	**052**	Wrench, socket, ½" drive
015	Hydraulic hose	**035**	Tire, Tractor, front	**053**	Wrench Socket 3/8" drive
016	Hydraulic Lift Cylinder	**036**	Tire, Tractor, rear	**054**	Wrench, Spark Plug
017	Ignition Switch	**037**	Trans-axle	**055**	Wrench, ratchet handle ½"
018	Magneto, solid state	**038**	Transport wheel assembly	**056**	Wrench, ratchet handle 3/8"
019	Mower height adjuster	**039**	U-Joint	**057**	Wrench, torque ½"
020	Mower Wheel	**040**	Valve Core	**058**	Wrench, torque 3/8"

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Incorrect Marks ✓ ✗ ▬ ● Correct Mark ●

Team Name / Additional Info

This sheet is for demonstration and practice only. You must use a real scan sheet for actual competition.

Team #

State

Last Name

First Name

Code

Placing Classes

Mark one answer in each column!

	1	2	3	4	5	6	
1234	○	○	○	○	○	○	1234
1243	○	○	○	○	○	○	1243
1324	○	○	○	○	○	○	1324
1342	○	○	○	○	○	○	1342
1423	○	○	○	○	○	○	1423
1432	○	○	○	○	○	○	1432
2134	○	○	○	○	○	○	2134
2143	○	○	○	○	○	○	2143
2314	○	○	○	○	○	○	2314
2341	○	○	○	○	○	○	2341
2413	○	○	○	○	○	○	2413
2431	○	○	○	○	○	○	2431
3124	○	○	○	○	○	○	3124
3142	○	○	○	○	○	○	3142
3214	○	○	○	○	○	○	3214
3241	○	○	○	○	○	○	3241
3412	○	○	○	○	○	○	3412
3421	○	○	○	○	○	○	3421
4123	○	○	○	○	○	○	4123
4132	○	○	○	○	○	○	4132
4213	○	○	○	○	○	○	4213
4231	○	○	○	○	○	○	4231
4312	○	○	○	○	○	○	4312
4321	○	○	○	○	○	○	4321
	1	2	3	4	5	6	

Keep/Cull 1

#	Keep	Cull
1	K	C
2	K	C
3	K	C
4	K	C
5	K	C
6	K	C
7	K	C
8	K	C

Mark 4 Keeps and 4 Culls

Keep/Cull 2

#	Keep	Cull
1	K	C
2	K	C
3	K	C
4	K	C
5	K	C
6	K	C
7	K	C
8	K	C

Mark 4 Keeps and 4 Culls

Keep/Cull 3

#	Keep	Cull
1	K	C
2	K	C
3	K	C
4	K	C
5	K	C
6	K	C
7	K	C
8	K	C

Mark 4 Keeps and 4 Culls

Keep/Cull 4

#	Keep	Cull
1	K	C
2	K	C
3	K	C
4	K	C
5	K	C
6	K	C
7	K	C
8	K	C

Mark 4 Keeps and 4 Culls

Judge 1

Judge 2

Judge 3

Judge 4

Exam 1

1	A B C D E	26	A B C D E
2	A B C D E	27	A B C D E
3	A B C D E	28	A B C D E
4	A B C D E	29	A B C D E
5	A B C D E	30	A B C D E
6	A B C D E	31	A B C D E
7	A B C D E	32	A B C D E
8	A B C D E	33	A B C D E
9	A B C D E	34	A B C D E
10	A B C D E	35	A B C D E
11	A B C D E	36	A B C D E
12	A B C D E	37	A B C D E
13	A B C D E	38	A B C D E
14	A B C D E	39	A B C D E
15	A B C D E	40	A B C D E
16	A B C D E	41	A B C D E
17	A B C D E	42	A B C D E
18	A B C D E	43	A B C D E
19	A B C D E	44	A B C D E
20	A B C D E	45	A B C D E
21	A B C D E	46	A B C D E
22	A B C D E	47	A B C D E
23	A B C D E	48	A B C D E
24	A B C D E	49	A B C D E
25	A B C D E	50	A B C D E

Exam 2

1	A B C D E
2	A B C D E
3	A B C D E
4	A B C D E
5	A B C D E
6	A B C D E
7	A B C D E
8	A B C D E
9	A B C D E
10	A B C D E
11	A B C D E
12	A B C D E
13	A B C D E
14	A B C D E
15	A B C D E
16	A B C D E
17	A B C D E
18	A B C D E
19	A B C D E
20	A B C D E
21	A B C D E
22	A B C D E
23	A B C D E
24	A B C D E
25	A B C D E

Exam 3

1	A B C D E
2	A B C D E
3	A B C D E
4	A B C D E
5	A B C D E
6	A B C D E
7	A B C D E
8	A B C D E
9	A B C D E
10	A B C D E
11	A B C D E
12	A B C D E
13	A B C D E
14	A B C D E
15	A B C D E
16	A B C D E
17	A B C D E
18	A B C D E
19	A B C D E
20	A B C D E
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23	A B C D E
24	A B C D E
25	A B C D E

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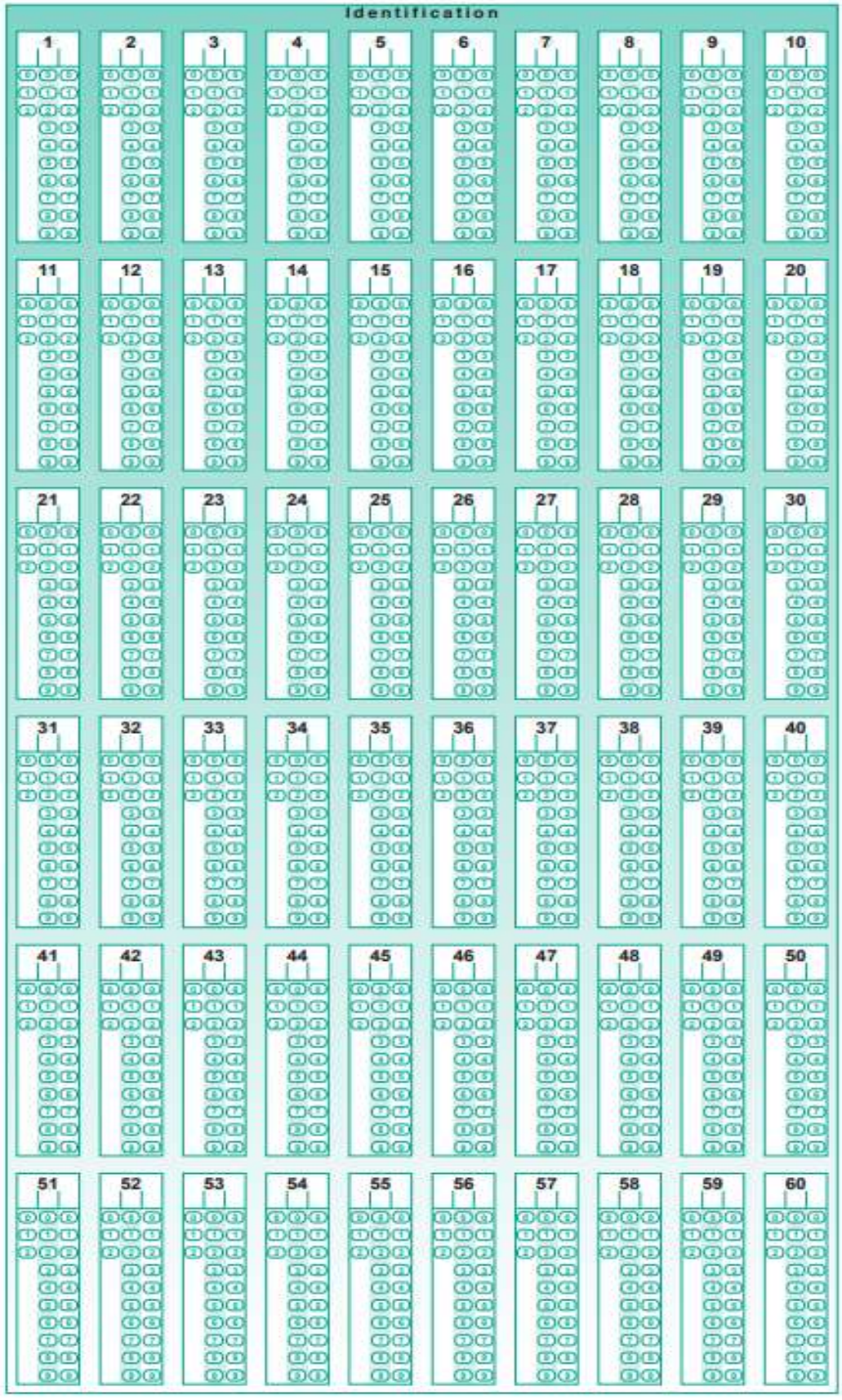
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