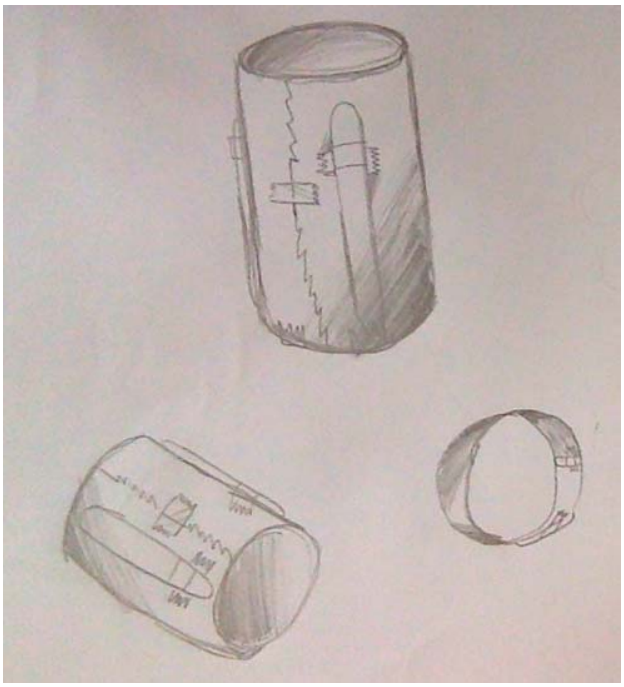
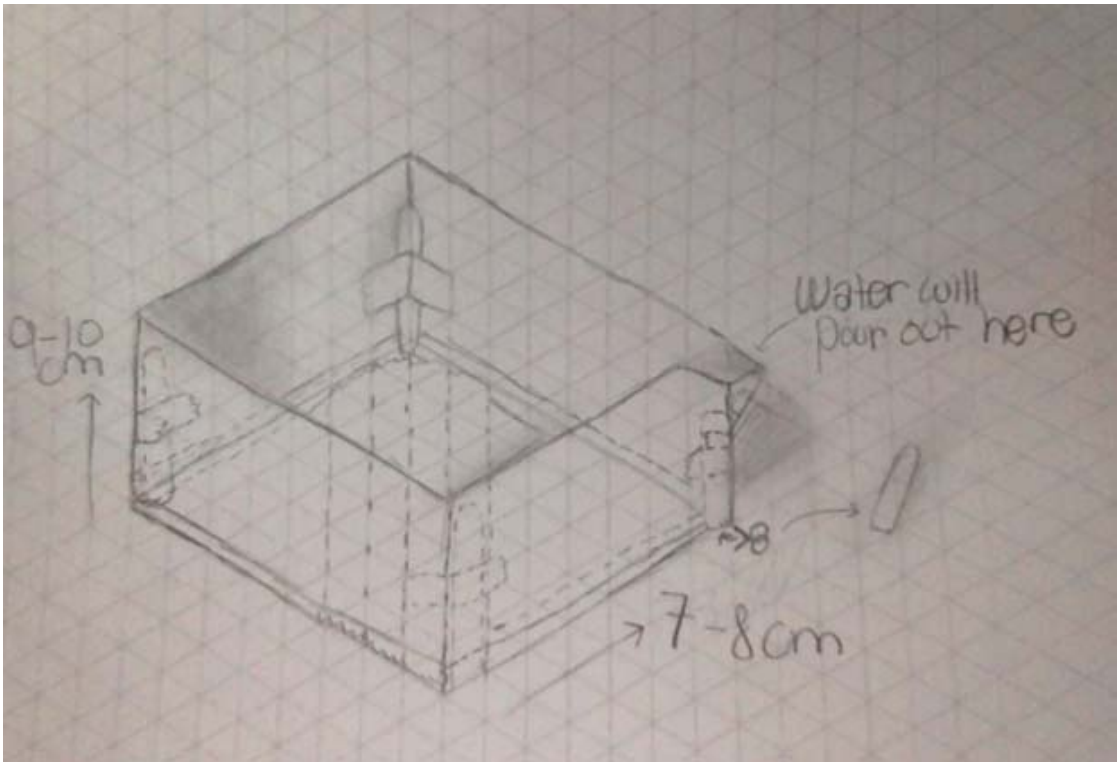
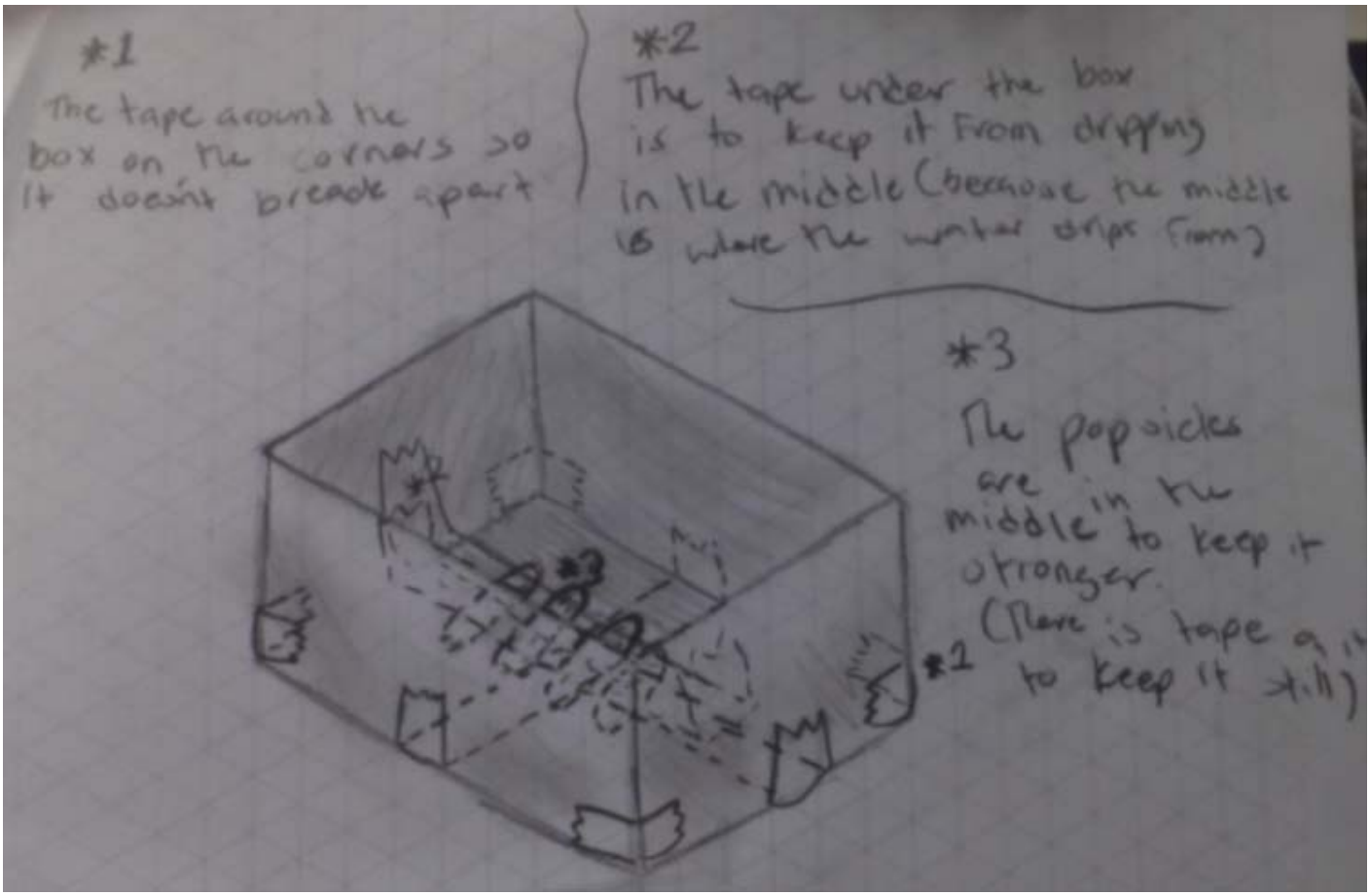
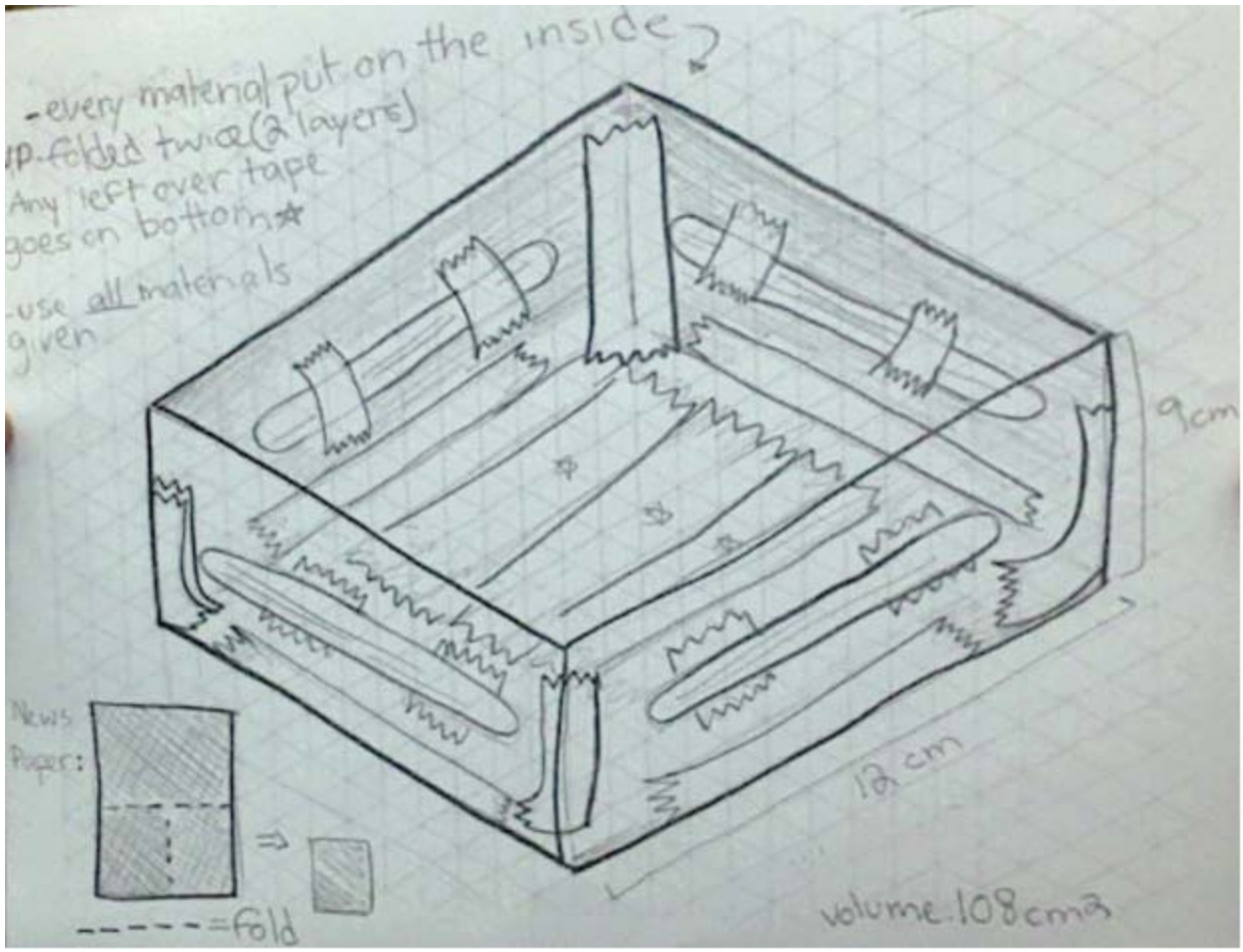
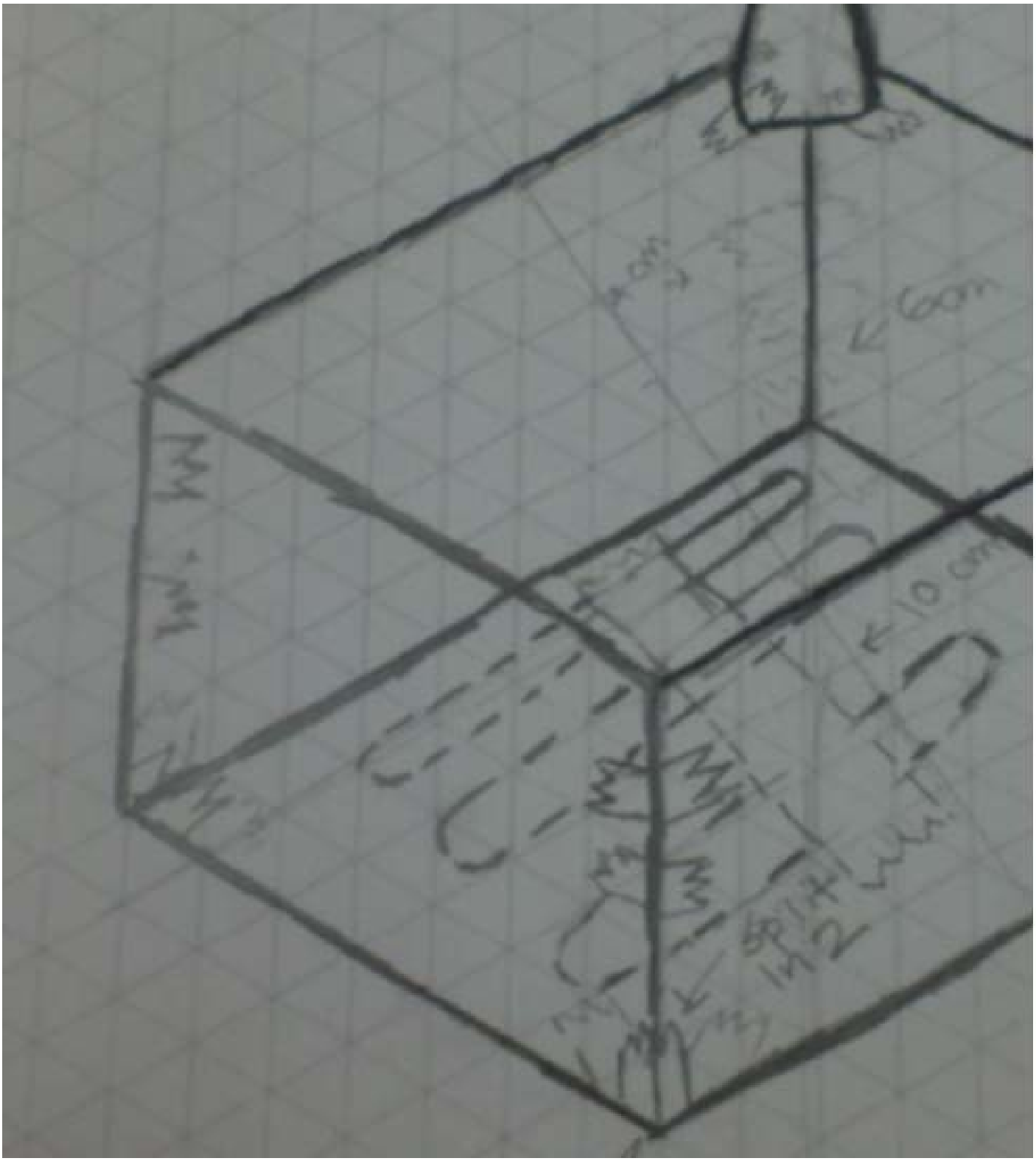
Newspaper Water Tank Idea Sketches, Tank Builds and Test Data



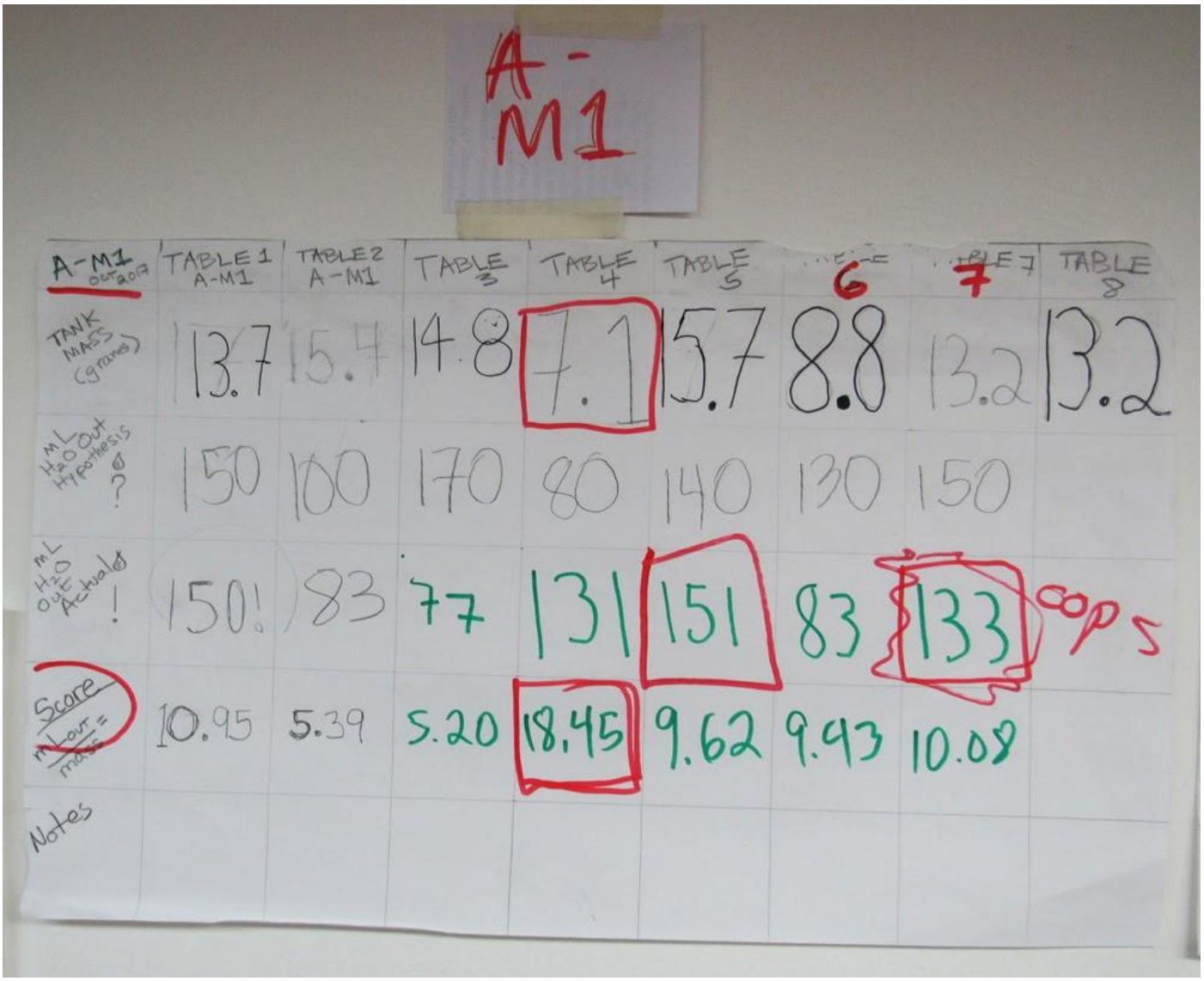


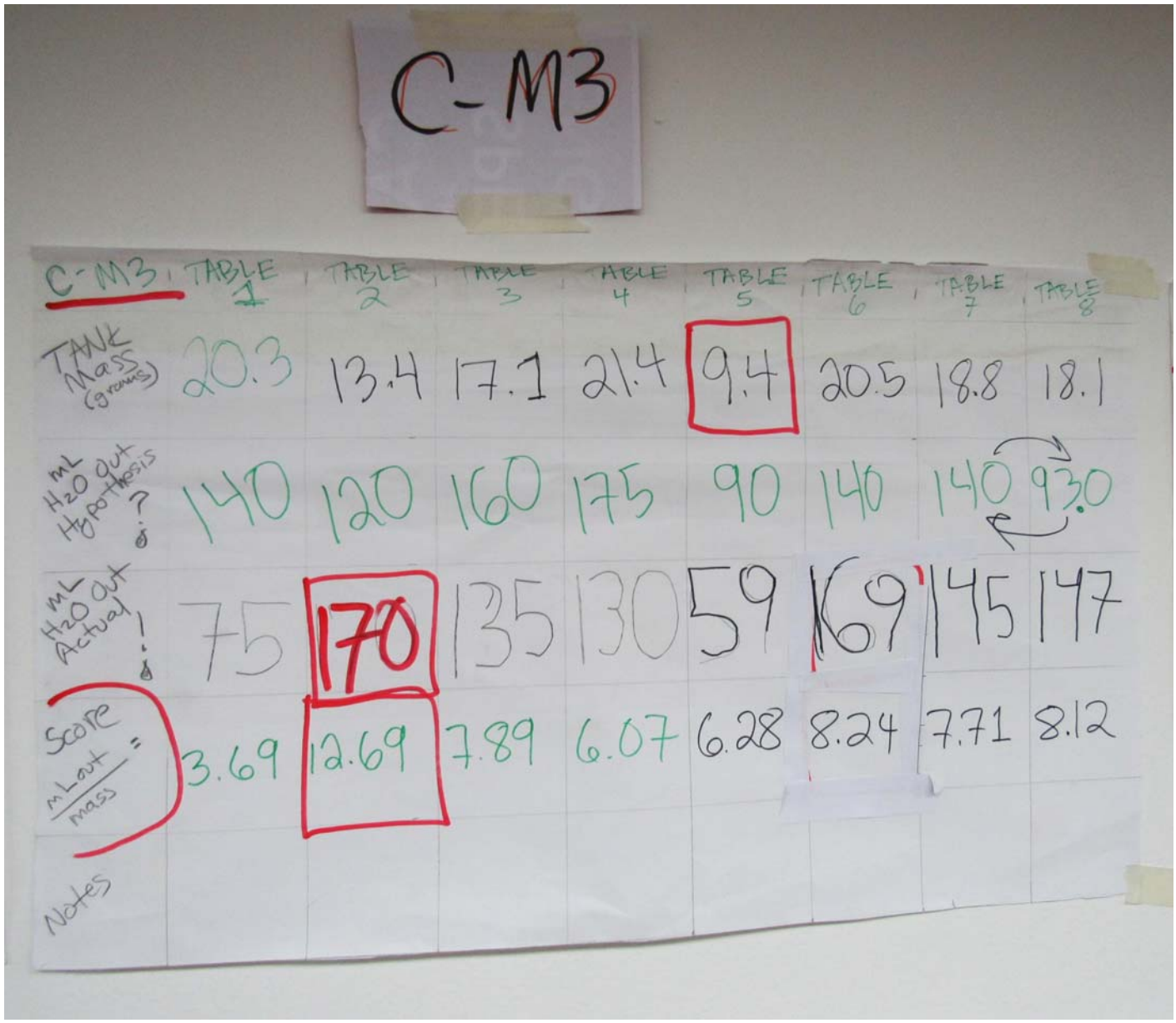

*1
The tape around the box on the corners so it doesn't breake apart
*2
The tape under the box is to keep it from dripping in the middle (because the middle is where the water drips from)
*3
The popsicles are in the middle to keep it stronger.
(There is tape on it to keep it still)
*1

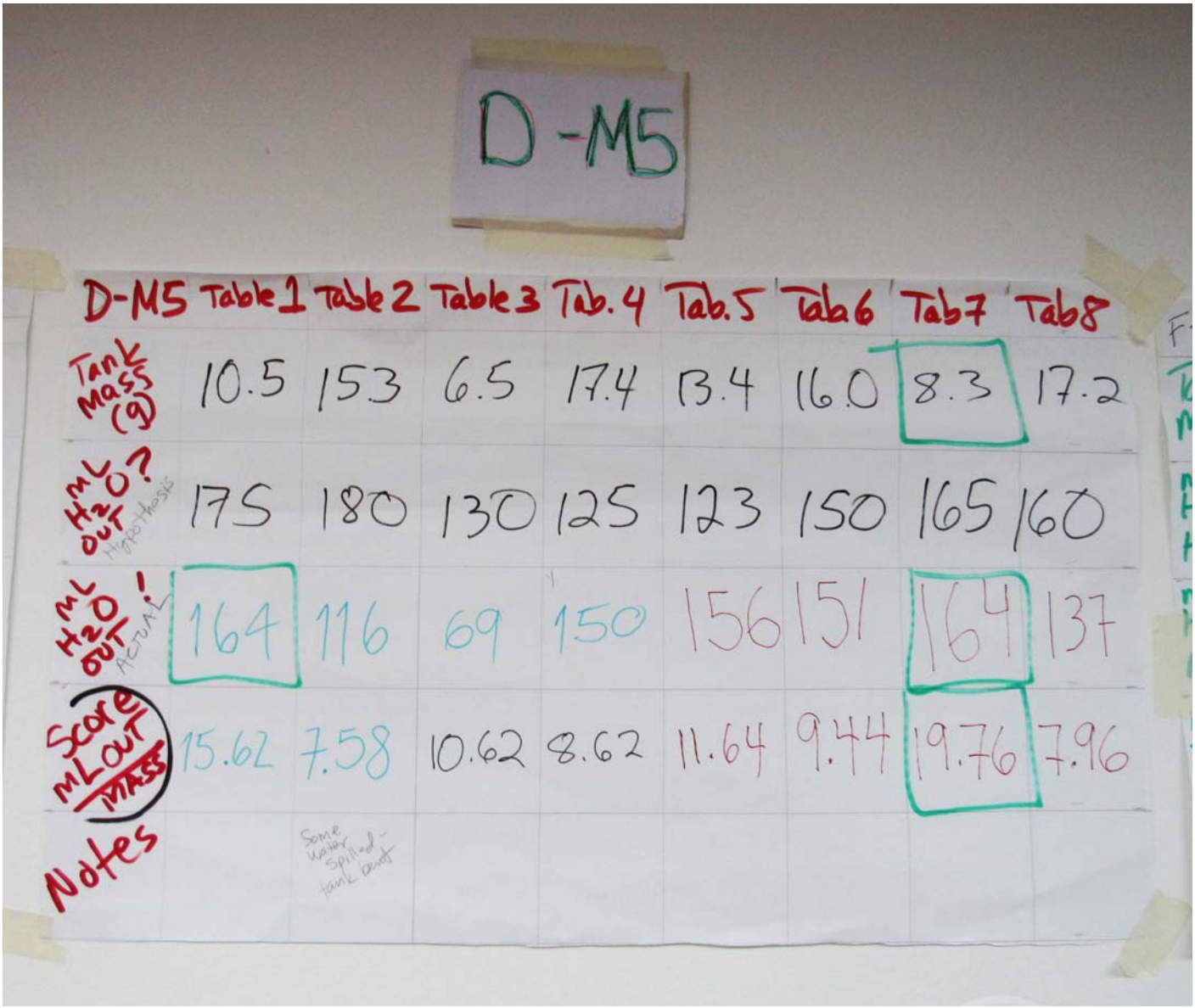

-every material put on the inside
-folded twice (2 layers)
Any left over tape goes on bottom
-use all materials given
9cm
18 cm
volume. 108cm3
News Paper:
=fold

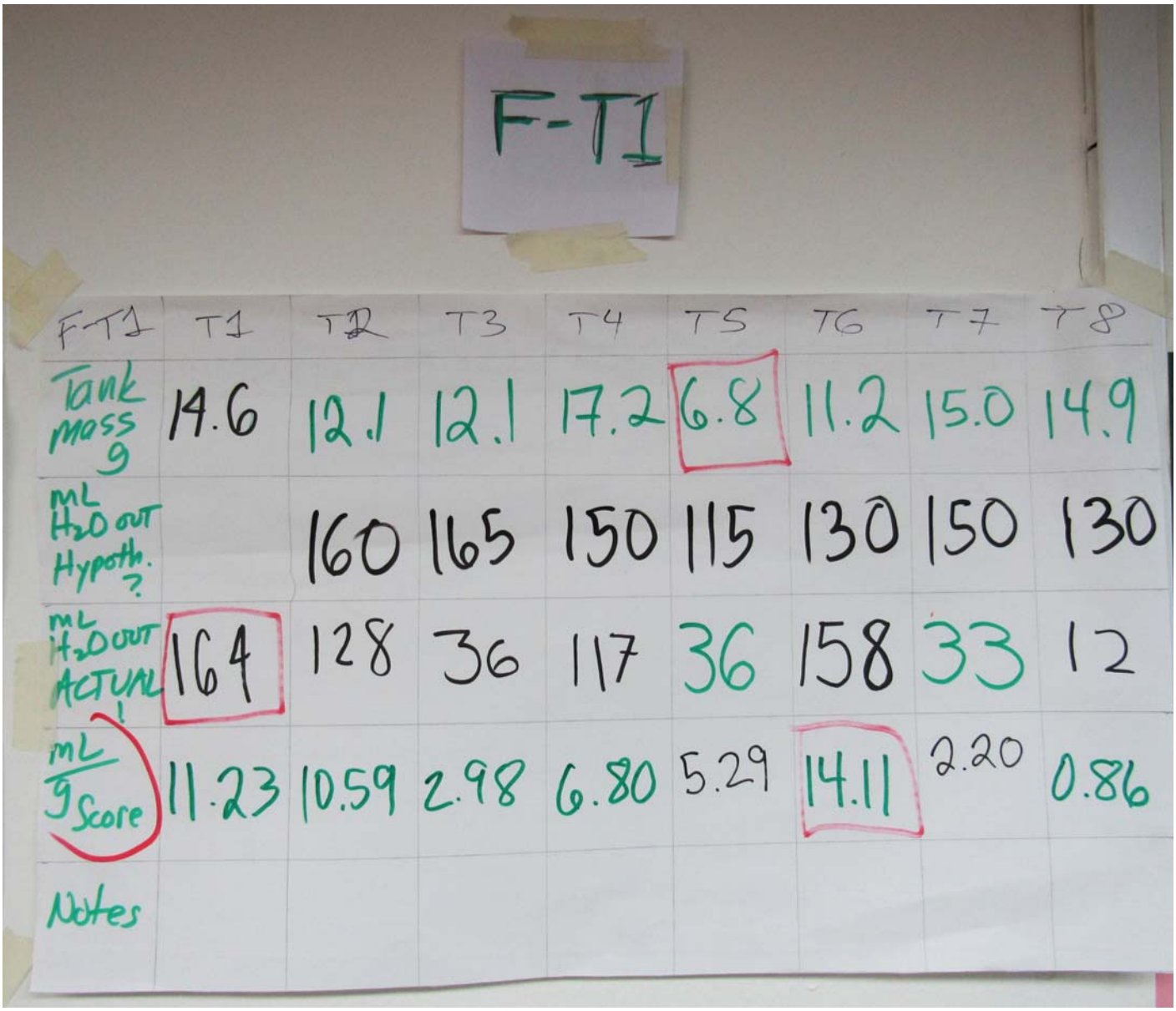

60°
10 cm

Test Data - November 2017

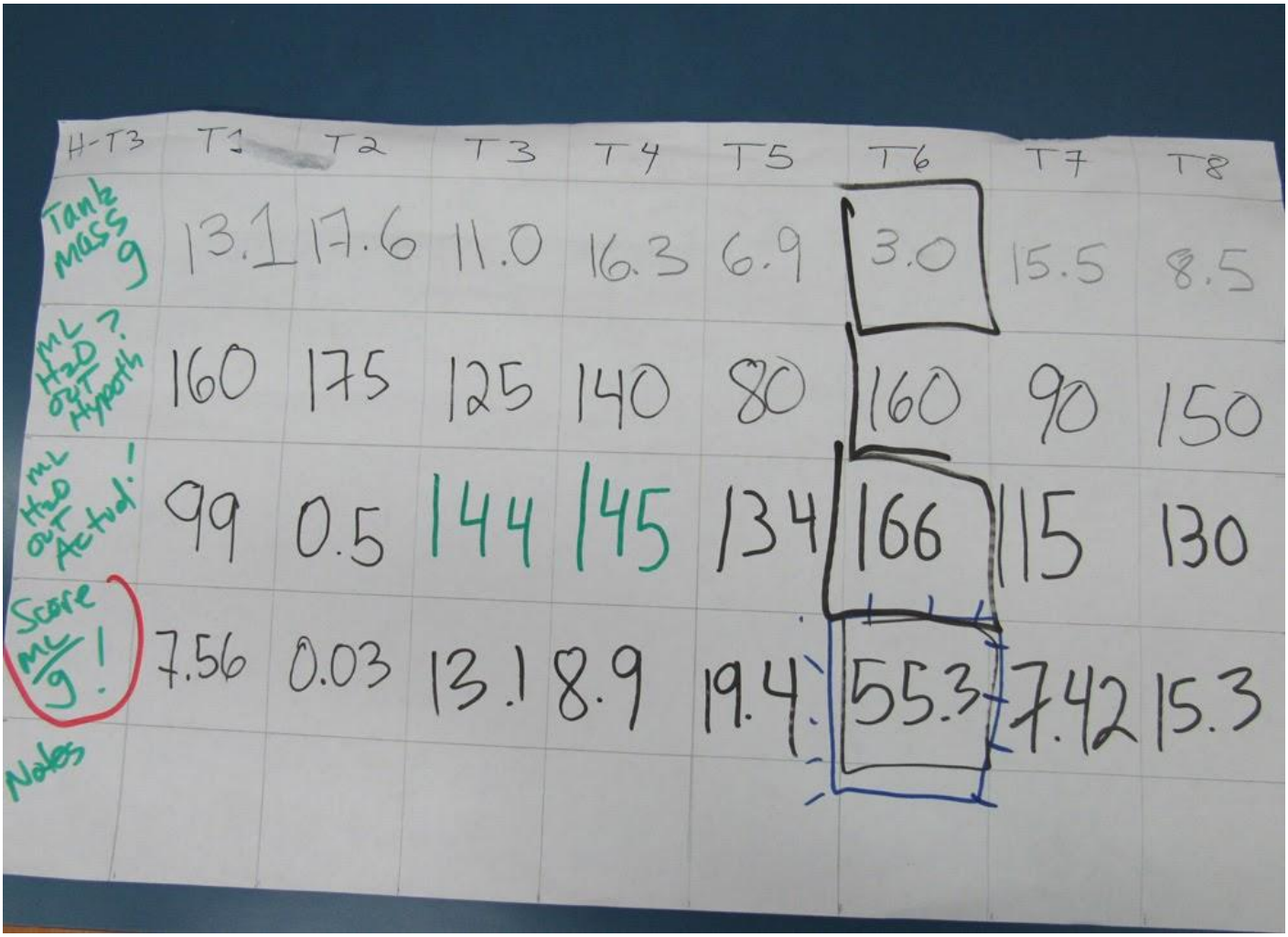



C-M3
C-M3 TABLE 1 TABLE 2 TABLE 3 TABLE 4 TABLE 5 TABLE 6 TABLE 7 TABLE 8
TANK Mass (grams) 20.3 13.4 17.1 21.4 9.4 20.5 18.8 18.1
mL H2O out Hypothesis ? 140 120 160 175 90 140 140 130
mL H2O out Actual ! 75 170 135 130 59 69 145 147
Score mL out / mass = 3.69 12.69 7.89 6.07 6.28 8.24 7.71 8.12
Notes


D-M5
D-M5 Table 1 Table 2 Table 3 Tab. 4 Tab. 5 Tab 6 Tab 7 Tab 8
Tank Mass (g) 10.5 15.3 6.5 17.4 13.4 16.0 8.3 17.2
mL H2O OUT? Hypothesis 175 180 130 125 123 150 165 160
mL H2O OUT! ACTUAL 164 116 69 150 156 151 164 137
Score mL OUT MASS 15.62 7.58 10.62 8.62 11.64 9.44 19.76 7.96
Notes
Some water spilled - tank bent



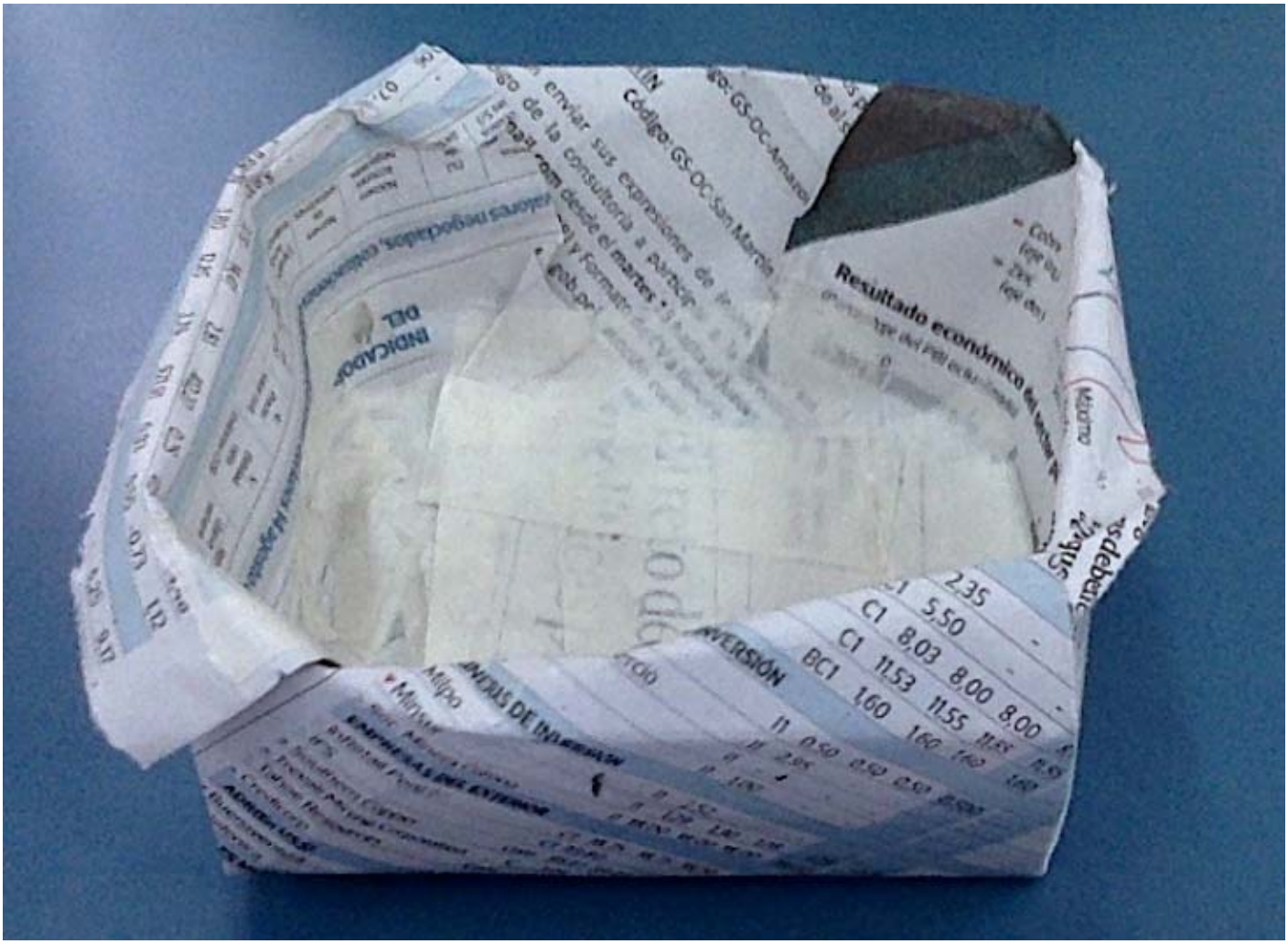
F-T1	T1	T2	T3	T4	T5	T6	T7	T8
Tank Mass g	14.6	12.1	12.1	17.2	6.8	11.2	15.0	14.9
mL H_2O out Hypoth. ?		160	165	150	115	130	150	130
mL H_2O out ACTUAL !	164	128	36	117	36	158	33	12
mL/g Score	11.23	10.59	2.98	6.80	5.29	14.11	2.20	0.86
Notes								



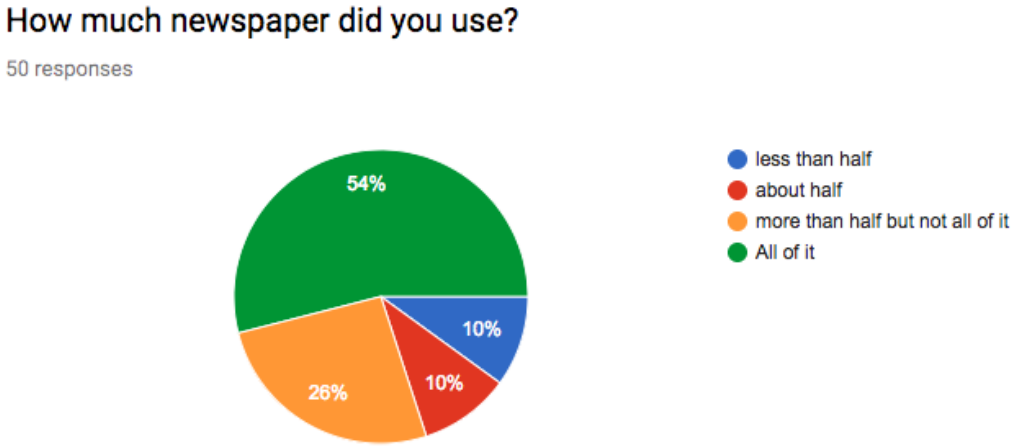
H-T3	T1	T2	T3	T4	T5	T6	T7	T8
Tank Mass g	13.1	17.6	11.0	16.3	6.9	3.0	15.5	8.5
mL H2O ? Hypoth	160	175	125	140	80	160	90	150
mL H2O Out Actual!	99	0.5	144	145	134	166	15	130
Score mL/g !	7.56	0.03	13.1	8.9	19.4	55.3	7.42	15.3
Notes								

Tank Builds November 2017

tres
ciudades
como el Cusc
podrían

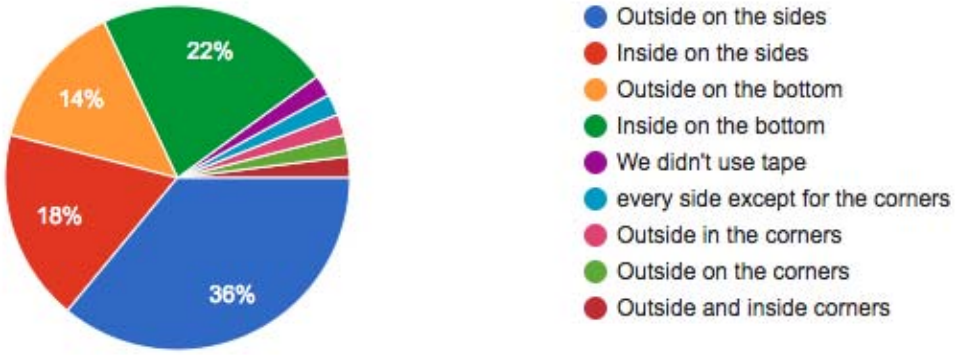

Resultado económico
2,35
5,50
8,03
8,00
11,53
11,55
1,60
1,60

Test Data November 2017



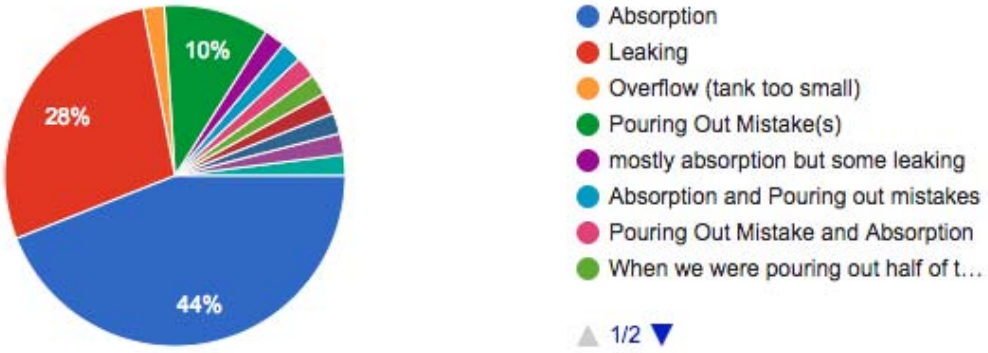
Where was most of your tape used?

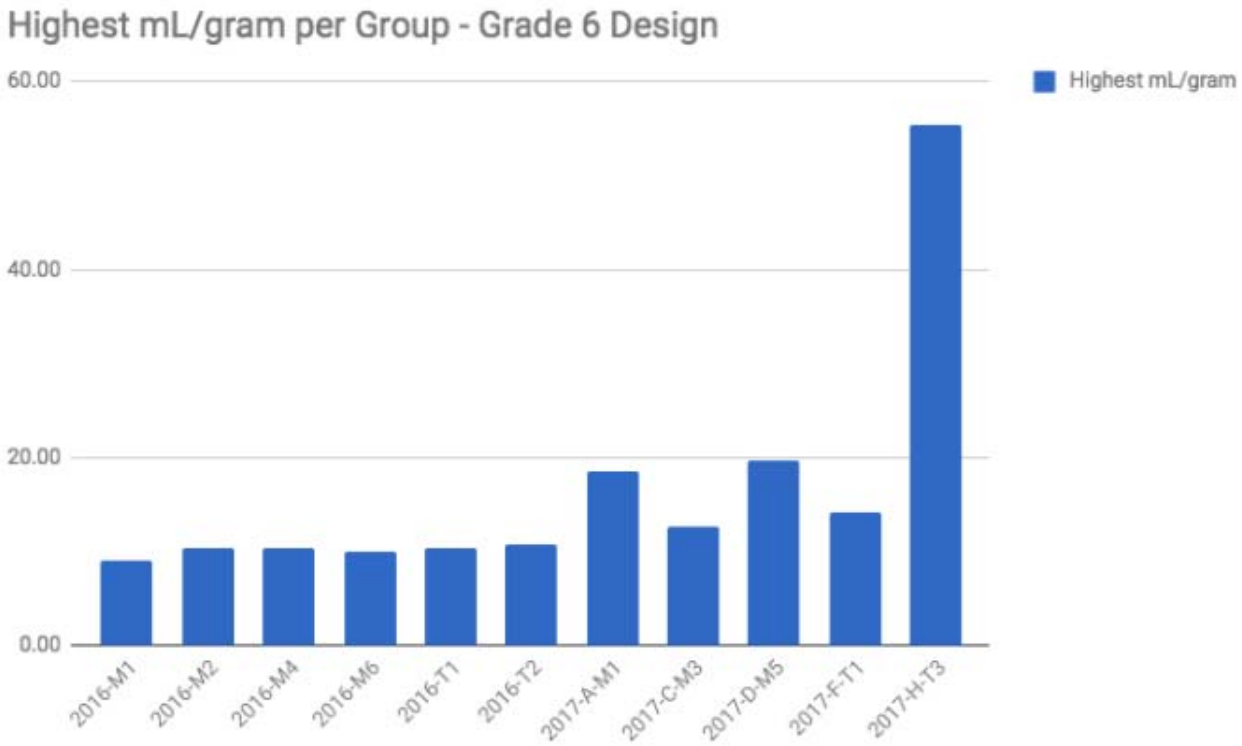
50 responses



Your tank lost most of it's water due to which of the following?

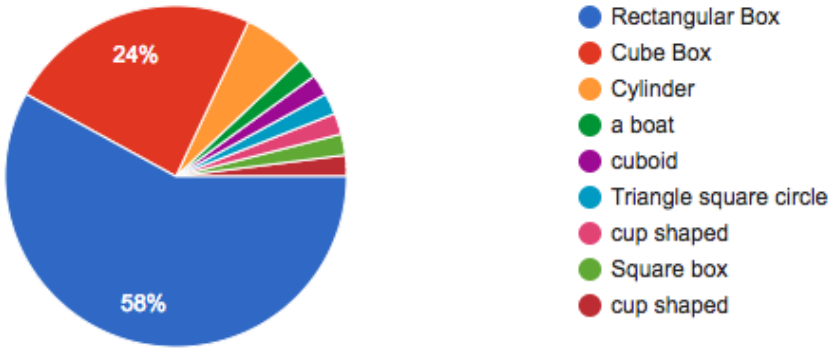
50 responses





What shape best describes your tank?

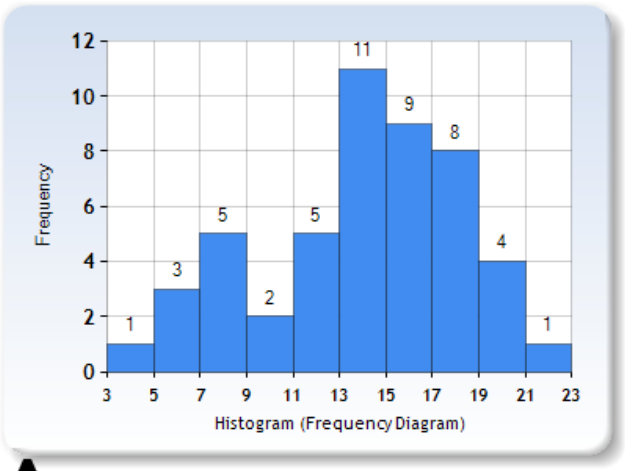
50 responses



Test Data November 2018

Frequency Table	
Class	*Count*
3-4.99	1
5-6.99	3
7-8.99	5
9-10.99	2
11-12.99	5
13-14.99	11
15-16.99	9
17-18.99	8
19-20.99	4
21-22.99	1

Your Histogram	
Mean	13.77306
Standard Deviation (s)	4.24332
Lowest Score	3
Highest Score	21.4
Distribution Range	18.4
Total Number of Scores	49
Number of Distinct Scores	44
Lowest Class Value	3
Highest Class Value	22.99
Number of Classes	10
Class Range	2

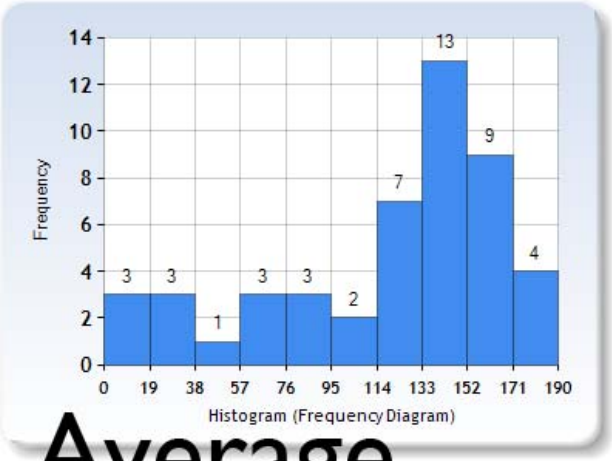


Average Tank Mass (g)

Edit

Frequency Table	
Class	*Count*
0-18.99	3
19-37.99	3
38-56.99	1
57-75.99	3
76-94.99	3
95-113.99	2
114-132.99	7
133-151.99	13
152-170.99	9
171-189.99	4

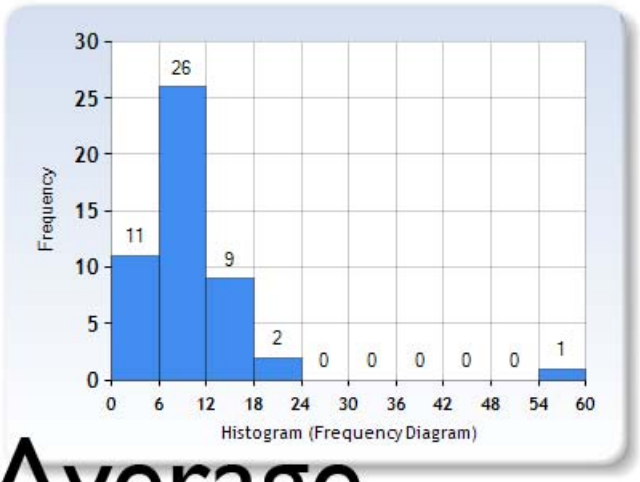
Your Histogram	
Mean	119.41667
Standard Deviation (s)	50.33064
Lowest Score	0.5
Highest Score	178
Distribution Range	177.5
Total Number of Scores	48
Number of Distinct Scores	38
Lowest Class Value	0
Highest Class Value	189.99
Number of Classes	10
Class Range	19



Average H2O Held (mL)

Frequency Table	
Class	*Count*
0-5.99	11
6-11.99	26
12-17.99	9
18-23.99	2
24-29.99	0
30-35.99	0
36-41.99	0
42-47.99	0
48-53.99	0
54-59.99	1

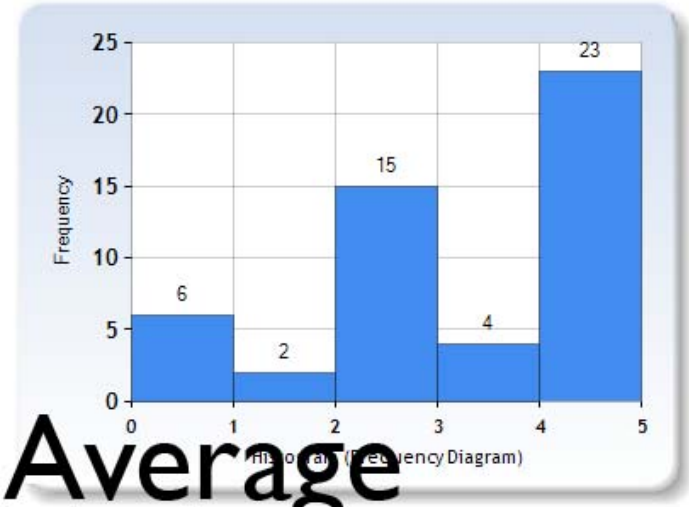
Your Histogram	
Mean	9.62102
Standard Deviation (s)	8.08806
Lowest Score	0
Highest Score	55.33
Distribution Range	55.33
Total Number of Scores	49
Number of Distinct Scores	48
Lowest Class Value	0
Highest Class Value	59.99
Number of Classes	10
Class Range	6



Average Tank Score (mL/g)

Frequency Table	
Class	*Count*
0-0.99	6
1-1.99	2
2-2.99	15
3-3.99	4
4-4.99	23

Your Histogram	
Mean	2.7666
Standard Deviation (s)	1.35831
Lowest Score	0
Highest Score	4
Distribution Range	4
Total Number of Scores	50
Number of Distinct Scores	10
Lowest Class Value	0
Highest Class Value	4.99
Number of Classes	5
Class Range	1



Average Tank Pop. Stick