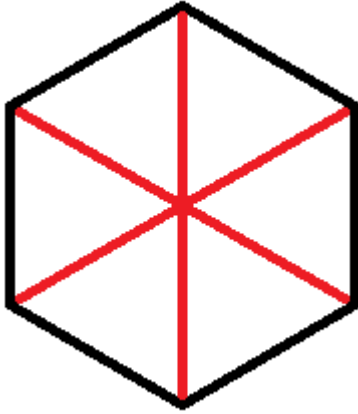


Team Name: \_\_\_\_\_

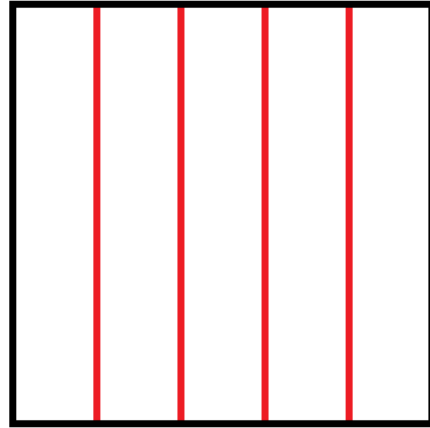
Team ID: \_\_\_\_\_

### 1 Cut A Part

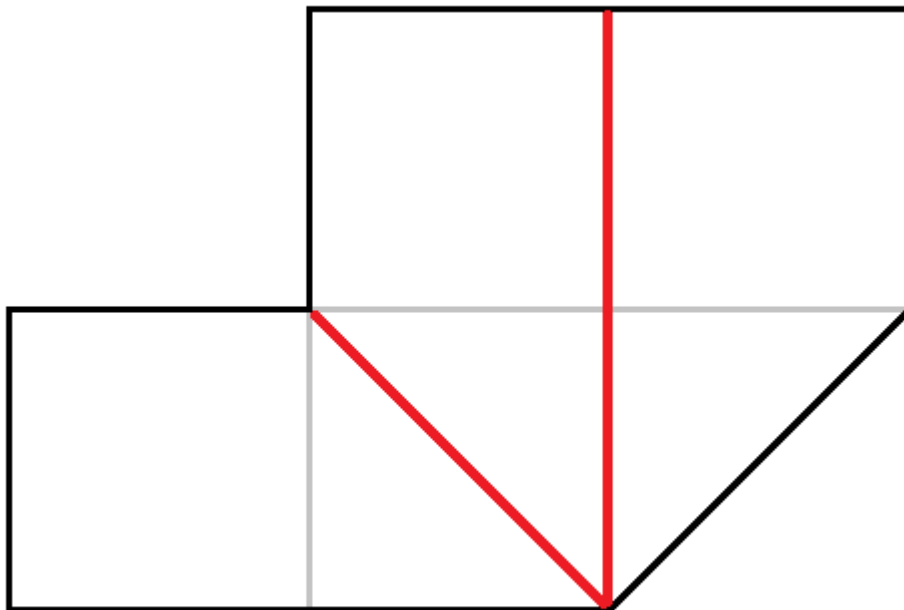
1. [3 points] Cut this regular hexagon into **6** congruent pieces.



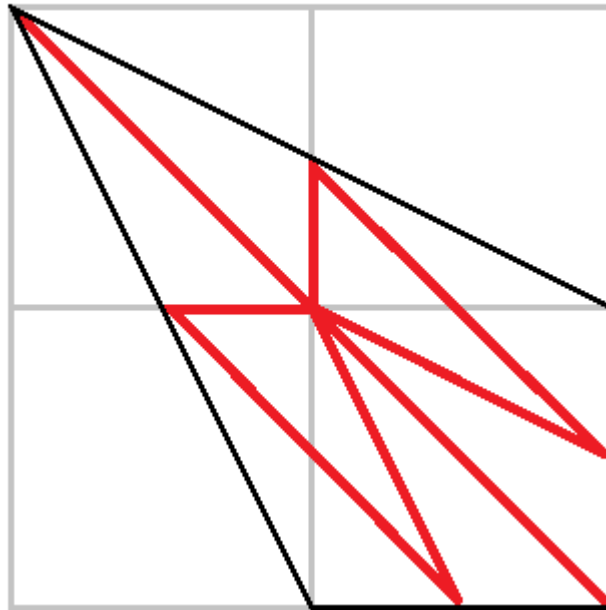
2. [5 points] Cut this square into **5** congruent pieces.



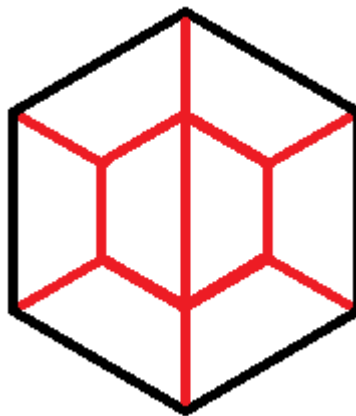
3. [5 points] Cut this object into **3** congruent pieces. Grid lines have been drawn for you.



4. [7 points] Cut this quadrilateral into 8 congruent pieces. Grid lines have been drawn for you.



5. [10 points] Cut this regular hexagon into 8 congruent pieces.



## 2 Separators

1. [6 points]

1		0	0	1	1
	2	0	0	1	1
1	1	1	2	1	2
2	0	1	2	2	1
0	2	2	1	1	2
1	1	2	1	2	1

2. [8 points]

1			0	0	1	0	4	3
	2		4	0	2	3	2	1
		3	2	0	3	1	0	2
0	2	0	2	3	3	2	1	1
0	0	0	3	3	1	1	2	2
2	0	0	1	2	2	1	3	3
1	3	0	1	2	1	3	3	2
3	0	1	3	1	3	2	2	1
2	1	1	2	1	2	3	1	3

3. [12 points]

1			3	0	3	0	3	3
	2		1	3	0	0	3	1
		3	2	3	3	0	0	0
3	3	0	1	2	3	3	1	2
2	3	1	2	3	1	3	2	1
1	2	3	3	1	2	1	3	2
1	1	0	2	1	2	1	3	3
3	1	2	1	2	3	2	1	3
2	0	0	3	3	1	2	2	1

4. [16 points]

1							
	2		1		0	2	
		3	2				
1			3	3	2	1	2
			1	3	2	3	2
		0	2	1	1	2	3
0		1	3	2	3	1	1
	4		2	1	1	3	3
3	1		1	2	3	2	1

5. [18 points]

1					1	1			1
	2			2				2	
		3			3				3
			4	4			4		4
		3	4	1	3	4	4	1	3
	2	3	4	4	1	3	1	2	4
			4	2	4	1	3	1	2
	2		4	3	2	4	1	2	3
				1	3	2	3	4	1
		3		2	1	3	4	4	2
			4	4	2	1	2	3	4
		3		3	4	2	2	3	1

### 3 Arrows

1. [5 points]

→		2
1	2	←
↗		

2. [11 points]

2	0	0	1	0	3	1	0
0	2	0	1	2	2	0	0
0	0	↙	↗	↗	↑	0	0
0	1	↗	↖	↓	↘	0	0
1	0	→	↑	↖	→	3	2
3	3	↘	←	←	←	0	1
0	0	0	1	1	0	0	0
0	0	0	0	2	0	0	0

3. [13 points]

	↙	1			
1				1	
		↑	↓		
	↗		2	1	1
		↗		↗	↘

4. [13 points]

↘	↓	↘	↖	↖
→	5	3	6	↙
↘	3	4	3	↘
→	7	2	4	↘
↗	↑	↖	↑	↘

5. [18 points]

3	←	0	↘				
↘	1	→	1		1		
2	↓	1	↘				
↑	3	←	1				
				→	3	←	2
				2	→	3	↓
				↑	1	↑	2
				0	↖	1	↖