Team Name: _____   **Team ID:** _____
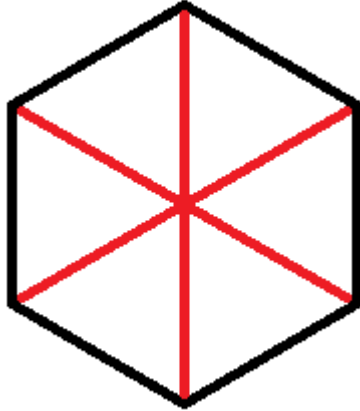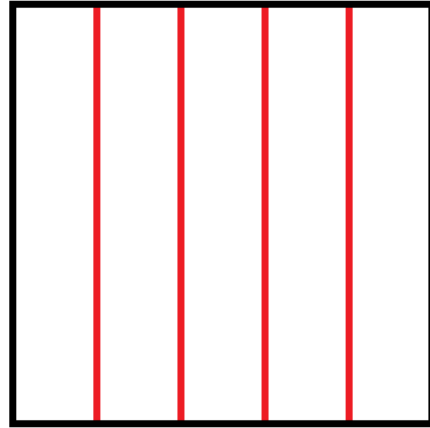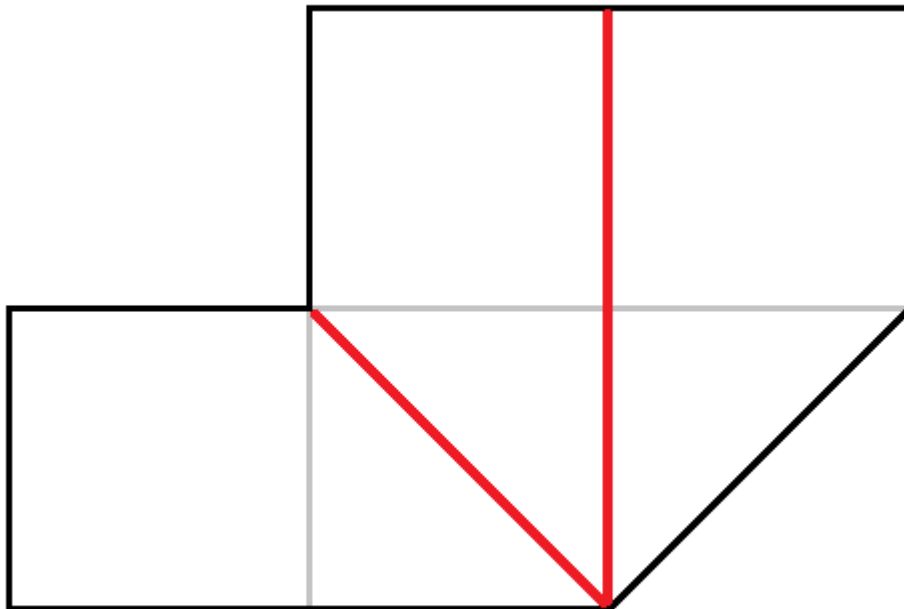
1   Cut A Part

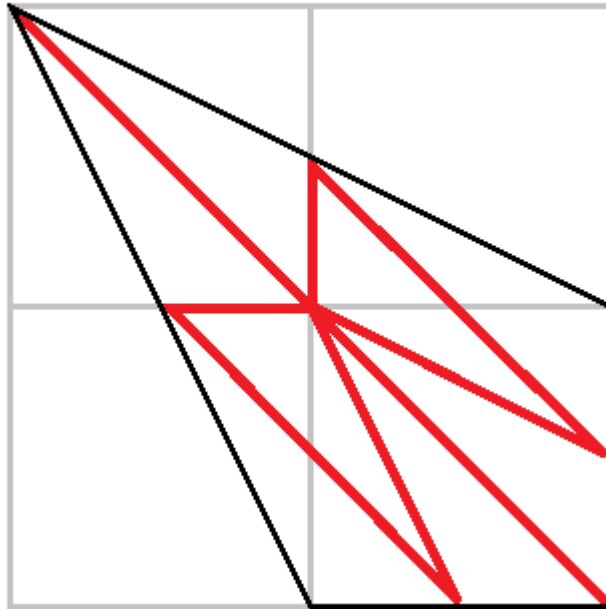1. [*3 points*] Cut this regular hexagon into **6** congruent pieces.

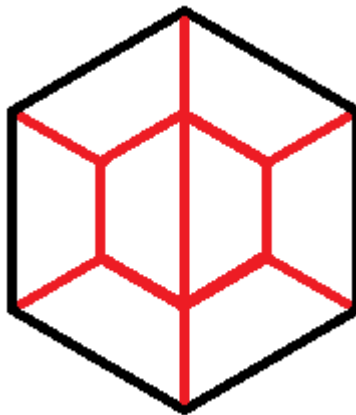2. [*5 points*] Cut this square into **5** congruent pieces.

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*] **Special rule: The clues specify the sum of the numbers between pairs.**

1				8		10		
	2		8					0
		3			5		6	
		1	2	1	3	1	3	2
	5		3	2	1	3	1	2
		0	3	3	2	2	1	1
10			1	3	2	3	2	1
		4	1	1	3	2	2	3
	0		2	2	1	1	3	3

5. [*18 points*] As a reminder, special rules only apply for one problem

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

3   Arrows

1. [*5 points*]

2. [*11 points*]

3. [*13 points*] **Special rule: Question marks have at least one arrow pointing to them. Arrows must point to at least one number/question mark.**

4. [*13 points*] **Special rule: All arrows point in different directions.**

5. [*18 points*] **Note: The special rule from the previous problem does not apply anymore.**