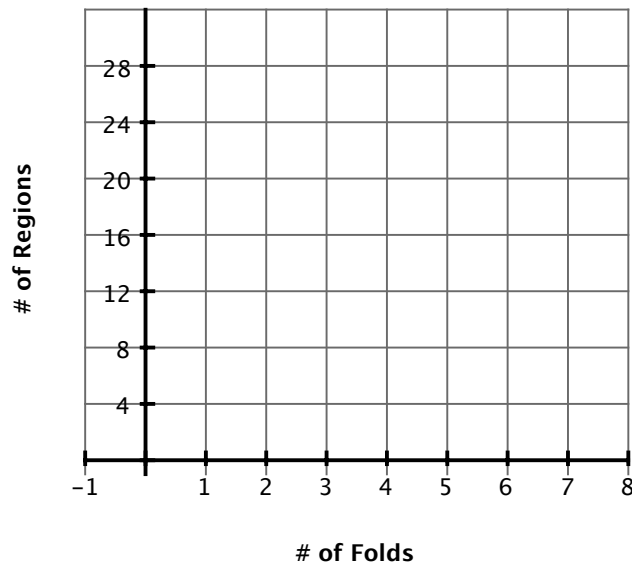


Paper Folding – Part I



Directions: Using a blank piece of paper, **fold the paper** in half, and **record the number of regions** formed when you open it back out to a full sheet. For example, before I fold the paper (0 Folds), I have one complete region. If I fold my paper once, I have 2 regions. Then **graph your results** and answer the reflection questions.

# of Folds	# of Regions
0	
1	
2	
3	
4	
5	
6	



1) What do you notice about the numbers in the right column (# of Regions)? (What is happening to the numbers?)

2) Describe how your graph is growing.

Take out Miracle Mike from Day 1 and answer the following questions:

3) Does your **table** from Paper Folding look more like Miracle Mike’s or The Rookie’s? Describe how the table from Paper Folding and the table from Miracle Mike are similar or different.

4) Does your graph from Paper Folding look more like Miracle Mike's or The Rookie's? They are similar or different because

5) Go back to your table on page 1 and fill out the empty columns by re-writing the # of Regions using repeated multiplication, then as a **power**.

# of Folds	# of Regions	# of Regions Written as Repeated Multiplication	# of Regions Written as a Power
0	1	No folds, 1 flat sheet of paper	2^0
1	2	2	2^1
2	4	2×2	
3	8	$2 \times 2 \times 2$	
4	16		
5	32		
6	64		

a) Why do you think the **base** is 2 every time?

b) When the # of regions is written as a power, where else do you see the exponent in the table?