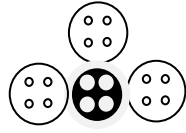
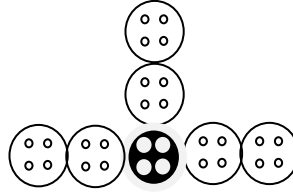


Buttons

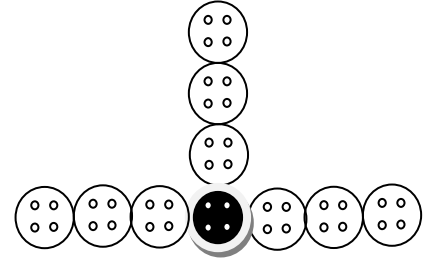
Gita plays with her grandmother’s collection of black and white buttons.
 She arranges them in patterns.
 Her first 3 patterns are shown below.



Pattern 1



Pattern 2



Pattern 3

1. Draw Pattern 4 in this box.

2. How many **white** buttons does Gita need for Pattern 5 and Pattern 6?

Pattern 5 _____

Pattern 6 _____

Explain how you figured this out.

3. How many buttons in **all** does Gita need to make Pattern 11? _____

Explain how you figured this out.

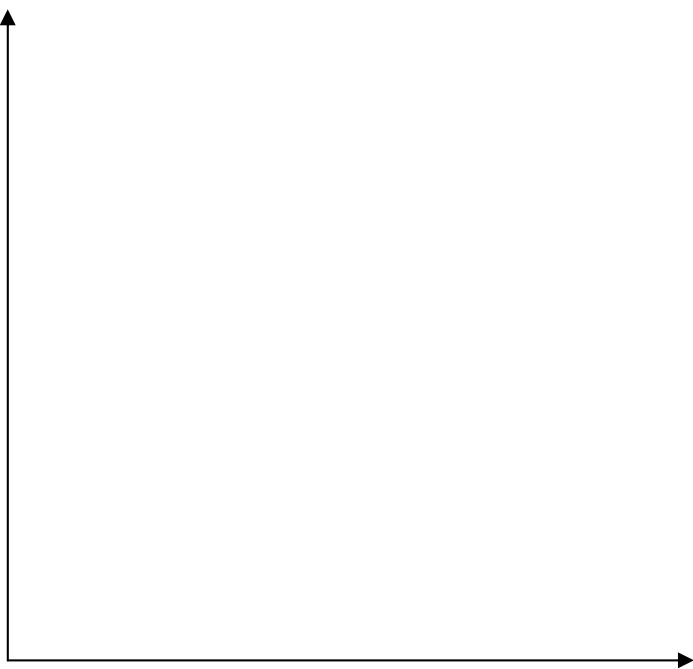
4. Gita thinks she needs 69 buttons in all to make Pattern 24.
 How do you know that she is not correct?

How many buttons does she need to make Pattern 24? _____

5. Complete the T-chart

Pattern	Total number of buttons
1	4
2	
3	
4	
5	
6	
11	
24	

6. Label and graph the values from #5. Make sure you have an appropriate scale for the graph.



7. Write a rule to describe the relationship between the two sets of data above. How do you know your rule is correct?