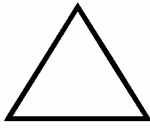
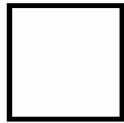


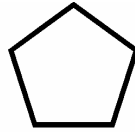
### Patterns of Pyramids and Prisms



Triangle



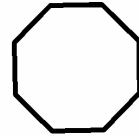
Square



Pentagon



Hexagon



Octagon

1. A **pyramid** has a flat base and a point at the top. Use modeling materials to construct pyramids with the bases shown above. **Use your models to complete the following table:**

Pyramid	Number of sides in base	Number of faces	Number of vertices	Number of edges
Triangular	3	4	4	6
Square				
Pentagonal				
Hexagonal				
Octagonal				

2. Look for patterns in the table and answer these questions:
- If the base of the pyramid has 10 sides, the number of faces is \_\_\_\_
  - If the base of the pyramid has 12 sides, the number of vertices is \_\_\_\_
  - If the base of the pyramid has 14 sides, the number of edges is \_\_\_\_
  - If the base of the pyramid has **n** sides, the number of faces is \_\_\_\_, the number of vertices is \_\_\_\_, and the number of edges is \_\_\_\_.

3. A **prism** has a flat base on top and bottom. Use modeling materials to construct prisms with the bases shown above. **Use your models to complete the following table:**

Prism	Number of sides in base	Number of faces	Number of vertices	Number of edges
Triangular	3	5	6	9
Square				
Pentagonal				
Hexagonal				
Octagonal				

4. Look for patterns in the table and answer these questions:
- If each base of a prism has 10 sides, the number of faces is \_\_\_\_
  - If each base of a prism has 12 sides, the number of vertices is \_\_\_\_
  - If each base of a prism has **n** sides, the number of faces is \_\_\_\_, the number of edges is \_\_\_\_ and the number of vertices is \_\_\_\_

5. Is there any general conclusion you can draw about the number of Faces, Edges, and Vertices of any of these shapes?  $F + V = ?$