Introduction:

Solving counting problem

Questions: (* questions can be used for evaluation)

1. Do you remember the brick tower problems? Say we have seven bricks of different colour, Red, Green, Blue, Black, White, Yellow, and Pink. Can you find out how many different brick tower we can make out of them?
   Hint: Do not you try to list down all the towers instead use the multiplication method taught in this class

   Solution
   Total number of blocks = 1 X 2 X 3X 4 X 5 X 6 X 7 = 5040

2. Our Prime Minister Narendra Modi is planning to go from India to America and then to France. His secretary told him that he can go to America from India via Japan or, via Germany or, via Greece, and he can go to France from America via England or, via Russia.
   But, while returning from France to India, Mr Modi can either come via China or via Italy.
   So, can you tell how many different paths are possible for Mr Modi to start from India to America and then to France and finally return to India.

   Solution
   Number of paths from India to America: 3 (India – Japan – America, India – Germany – America, India – Greece – America)

   Number of paths from America to France: 2 (America – England – France, America – Russia – France)

   Number of paths from France to India (return): 2 (France – China – India, France – Italy – India)

   Total paths = 3 X 2 X 2 = 12

Name: **Class:**   **Div:**   **Roll. No:**