Computer Science and Engineering Department, SVNIT, Surat.
Automata and Formal Languages
Tutorial - 1

1.X = {1, 3} and Y = {4, 7} then, X × Y =?

2. Write the subsets of {1,2,3}.

3.If A = {2, 4, 6, 8, 10} and B = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10} then which is subset and superset?

4.Write the set A = {1, 4, 9, 16, 25, . . . } in set-builder form.

5.Are the following pair of sets equal?
A = {x:x is a letter in the word SORROW}
B = {y:y is a letter in the word SOW}

6.Consider the set Φ, A= {1,3}, B = {1,5,9}, C = {1,3,5,7,9}. Now determine which of the symbol, between $\subset$ and $\not\subset$, should be placed between each of the following pair of sets:
   1. Φ…B
   2. A…B