

1. The language L of strings of odd length, defined over $\Sigma = \{a,b\}$, can be written as

Solution $L = \{a,b, aaa,aab,aba,abb,bbb,baa,bab,bba,aaaaa,.....\}$

2. The language L of strings that does not start with b , defined over $\Sigma=\{a,b\}$, can be written as

Solution $L = \{a, ab, aa, aaa, aab,aba,abb, \dots\}$

3. The language L of strings of length 2, defined over $\Sigma=\{a,b,c\}$, can be written as

$L = \{aa, ab, ba, bb, bc, cb, ca, cb\}$

4. Example: The language **EVEN**, of strings defined over $\Sigma=\{-,0,1,2,3,4,5,6,7,8,9\}$, can be written as

Solution $L = \text{EVEN} = \{\dots, -4, -2, 0, 2, 4, \dots\}$

5. Example: The language $\{a^n b^n a^n\}$, of strings defined over $\Sigma=\{a,b\}$, as

$\{a^n b^n a^n: n=1,2,3,\dots\}$, can be written as

Solution $L = \{aba, aabbaa, aaabbbbaa, aaaabbbbbaa, \dots\}$

6. Example: The language **FACTORIAL**, of strings defined over $\Sigma=\{a\}$, as

$\{a^{n!}: n=1,2,3,\dots\}$, can be written as

Solution $L = \{a, aa, aaaaaa, \dots\}$.