# Lucrarea practică № 1

1. Pentru gramatica formală *G=(VN, VT, P, S)* construiţi 5 şiruri care aparţin limbajului *L(G)* generat de această gramatică.
2. Construiţi arborii de derivare pentru aceste şiruri.
3. Construiţi (desenaţi) automatul finit echivalent.

***Variant 1.***

VN={S, P,Q }, VT={a, b,c,d,e,f } ,

P= {

1. S → aP
2. P → bP
3. P → cP
4. P → dQ
5. Q → eQ
6. Q → fQ
7. Q → a }

***Variant 2.***

VN={S, R,L }, VT={a, b,c,d,e,f } ,

P= {

1. S → aS
2. S → bS
3. S → cR
4. R → dL
5. L → fL
6. L → eL
7. L → d }

***Variant 3.***

VN={S, D,R }, VT={a, b,c,d,e,f } ,

P= {

1. S → aS
2. S → bD
3. D → cD
4. D → dR
5. R → eR
6. R → fR
7. R → e
8. R → f
9. D → d }

***Variant 4.***

VN={S, L }, VT={a, b,c,d,e,f,j } ,

P= {

1. S → aS
2. S → bS
3. S → cS
4. S → dL
5. L → eL
6. L → fL
7. L → jL
8. L → e
9. L → f
10. L → j
11. S → d }

***Variant 5.***

VN={S, F,L }, VT={a, b,c,d,e } ,

P= {

1. S → bS
2. S → aF
3. F → cF
4. F → dF
5. F → eF
6. F → aL
7. L → cL
8. L → c
9. F → a }

***Variant 6.***

VN={S, I,B,K,Q }, VT={a,b,c,e,n,f,m} и

P= {

1. S → aI
2. I → bB
3. B → cS
4. I → eK
5. K → nK
6. Q → fQ
7. K → m }

***Variant 7.***

VN={S, D,E,F,L }, VT={a, b,c,d,e,i,j,k } и

P= {

1. S → aD
2. D → bE
3. E → cF
4. F → dD
5. E → eL
6. L → iL
7. L → jL
8. L → k }

***Variant 8.***

VN={S, D,E,B,I,K}, VT={a, b,c,d,e,f,j } ,

P= {

1. S → aD
2. D → dE
3. D → bB
4. B → cS
5. E → e
6. E → eI
7. I → fK
8. K → jE }

***Variant 9.***

VN={S, Q,G,E,,L }, VT={a,b,c,d,e,f,j,i } ,

P= {

1. S → aQ
2. Q → dG
3. Q → bE
4. E → cS
5. G → i
6. G → eL
7. L → fQ
8. G → j }

***Variant 10.***

VN={S, B,D,F,Q }, VT={a,b,c,f,d,i } ,

P= {

1. S → aB
2. S → bB
3. B → cD
4. D → fF
5. D → dQ
6. Q → eB
7. D → f
8. F → iF
9. F → i }

***Variant 11.***

VN={S, B,L,F, N }, VT={a, b,c,d,f,e,i } ,

P= {

1. S → aB
2. B → bB
3. B → cL
4. L → fF
5. L → dN
6. N → eB
7. L → f
8. F → iF
9. F → i }

***Variant 12.***

VN={S, B,D,I,J }, VT={a, b,c,d,e,f,j } ,

P= {

1. S → aB
2. S → bB
3. B → cD
4. D → j
5. D → dI
6. I → eJ
7. J → fB }

***Variant 13.***

VN={S, B,D,J,I,F }, VT={a, b,c,d,e,f },

P= {

1. S → cB
2. B → aD
3. D → f
4. D → bJ
5. J → cI
6. I → dF
7. F → eB }

***Variant 14.***

VN={S,F,D,E}, VT={a, b,c,d,i,j,f } ,

P= {

1. S → aF
2. F → bF
3. F → cD
4. D → dE
5. E → i
6. E → jF
7. F → fD }

***Variant 15.***

VN={S,B,D,E, L }, VT={a,b,c,d,e,i } ,

P= {

1. S → aB
2. B → bE
3. B → fE
4. E → cD
5. D → i
6. D → dL
7. L → eE }

***Variant 16.***

VN={S,B,D,E }, VT={a, b,c,d,e,f,j} ,

P= {

1. S → aS
2. S → bB
3. S → jB
4. B → cB
5. B → d
6. B → dD
7. D → eE
8. E → fB }