GRAMÁTICAS

Indica de qué tipo son y qué lenguaje generan (realizando derivaciones sucesivas). Si una G es de tipo 2 o tipo 3, obtén la equivalente bien formada (limpia).

1. G = ({a}, {S,A,B,C,D,E}, S, P), P =

{

S -> ACaB
Ca -> aaC
CB -> DB
CB -> E
aD ->Da
AD -> AC
aE->Ea
AE -> λ

}

2. G = ({0,1}, {S,A,B}, S, P), P =

{

S -> 0A
A -> 0AB
A -> 1
B -> 1

}

3. G = ({a}, {S,A,B,C }, S, P), P =

{

S -> AB
S -> CD
A -> 0A1
A -> λ
B -> 2B
B -> λ
C -> 0C
C -> λ
D -> 1D2
D -> λ}

4. G = (ΣT, ΣN, S, P), con: Σ_T = {0,1,2,3,4,5,6,7,8,9}, Σ_N = {S, D, U}, P =

{
S ::= 0 | 3 | 6 | 9 | 0S | 3S | 6S | 9S | 1D | 4D | 7D | 2U | 5U | 8U
D ::= 2 | 5 | 8 | 2S | 5S | 8S | 1U | 4U | 7U | 0D | 3D | 6D | 9D
U ::= 1 | 4 | 7 | 1S | 4S | 7S | 2D | 5D | 8D | 0U | 3U | 6U | 9U
}

5. G= ({0,1}, {S,B,C}, S, P), P=

{
S-> 0SBC / 01C
CB -> BC
1B -> 11
1B -> 1
}

6. G = ({a,b}, {S, A, B, C}, S, P), P=
   {
   S-> BAB
   BA->BC
   CA -> AAC
   CB -> AAB
   A -> a
   B-> b
   }

7. G = ({0,1,2}, {S, A, B, C}, S, P), P=
   {
   S -> ABCS / ABC
   AB -> BA
   BC -> CB
   BA ->AB
   CA ->AC
   CB ->BC
   A -> 0
   B -> 1
   C -> 2
   }

8. G = ({0}, {S, L,D,R}, S, P), P=
   {
   S -> L0R
   D0 -> 00D
   R-> λ
   L -> LD / λ
   DR-> R
   }

9. G={(0,a,1), (S, A,5,D), (S), (S::=5a|1, A::=A0, A::=a|D, 5::=A1|0, D::=λ)}

10. G={(a,B), (3,A,b,C, D, E, F,G, H), (3), (3::=A|b, A::=aEa, b::=aEb|aFD, E::=aEE|aFG, F::=aEF|aFH, F::=B, A::=AFC, H::=B|λ, D::= λ)}