Assignment # 3

**Due: March 3 by 11:59PM**

Present the **CKY** recognition matrix for each of the following stings (one per page on 4 pages) assuming the Chomsky Normal Form grammar, **G = ({S,A,B,C,D,E}, {a,b}, S, P)**, specified by the rules **P**. Note: not all strings are in the language.

**S → AB | BA**

**A → CD | a**

**B → CE | b**

**C → a | b**

**D → AC**

**E → BC**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **a** | **b** | **b** | **a** | **b** |
| **1** |  |  |  |  |  |
| **2** |  |  |  |  |
| **3** |  |  |  |
| **4** |  |  |
| **5** |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **b** | **a** | **b** | **a** |
| **1** |  |  |  |  |
| **2** |  |  |  |
| **3** |  |  |
| **4** |  |
|  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **b** | **b** | **a** | **a** | **b** | **b** |
| **1** |  |  |  |  |  |  |
| **2** |  |  |  |  |  |
| **3** |  |  |  |  |
| **4** |  |  |  |
| **5** |  |  |
| **6** |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **a** | **b** | **b** | **a** |
| **1** |  |  |  |  |
| **2** |  |  |  |
| **3** |  |  |
| **4** |  |