Dijkstra :

Graphe 1 en partant de 0 :

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CC | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 0 | 0(0) | 5(0) | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ |
| 0,1 | ● | ● | 5(1) | ∞ | 10(1) | 6(1) | ∞ | ∞ |
| 0,1,2 | ● | ● | ● | ∞ | 10(1) | 6(1) | 6(2) | ∞ |
| 0,1,2,5 | ● | ● | ● | ∞ | 8(5) | ● | 6(2) | ∞ |
| 0,1,2,5,6 | ● | ● | ● | ∞ | 8(5) | ● | ● | 10(6) |
| 0,1,2,4,5,6 | ● | ● | ● | ∞ | ● | ● | ● | 10(6) |
| 0,1,2,4,5,6,7 | ● | ● | ● | 11(7) | ● | ● | ● | ● |
| 0,1,2,3,4,5,6,7 | ● | ● | ● | ● | ● | ● | ● | ● |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sommets | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| CC | 0 | 0,1 | 0,1,2 | 0,1,2,6,7,3 | 0,1,5,4 | 0,1,5 | 0,1,2,6 | 0,1,2,6,7 |
| Distance | 0 | 5 | 5 | 11 | 8 | 6 | 6 | 10 |

Graphe 1 en partant de 6 :

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CC | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6 | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | 0(6) | 4(6) |
| 6,7 | ∞ | ∞ | ∞ | 5(7) | ∞ | ∞ | ● | ● |
| 6,7,3 | ∞ | ∞ | 7(3) | ● | ∞ | ∞ | ● | ● |
| 6,7,3,2 | ∞ | ∞ | ● | ● | ∞ | ∞ | ● | ● |
| 6,7,3,2 | ∞ | ∞ | ● | ● | ∞ | ∞ | ● | ● |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sommets | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| CC | / | / | 6,7,3,2 | 6,7,3 | / | / | 6 | 6,7 |
| Distance | ∞ | ∞ | 7 | 5 | ∞ | ∞ | 0 | 4 |

Graphe 4 en partant de 1 :

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CC | 0 | 1 | 2 | 3 | 4 | 5 |
| 1 | ∞ | 0(1) | 2(2) | ∞ | ∞ | ∞ |
| 1,2 | ∞ | ● | ● | 5(2) | ∞ | ∞ |
| 1,2,3 | ∞ | ● | ● | ● | 9(3) | ∞ |
| 1,2,3,4 | ∞ | ● | ● | ● | ● | 14(4) |
| 1,2,3,4,5 | ∞ | ● | ● | ● | ● | ● |
| 1,2,3,4,5, | ∞ | ● | ● | ● | ● | ● |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sommets | 0 | 1 | 2 | 3 | 4 | 5 |
| CC | / | 1 | 1,2 | 1,2,3 | 1,2,3,4 | 1,2,3,4,5 |
| Distance | ∞ | 0 | 2 | 5 | 9 | 14 |

Graphe 6 en partant de 0 :

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CC | 0 | 1 | 2 | 3 | 4 |
| 0 | 0(0) | 1(0) | 4(0) | 8(0) | 13(0) |
| 0,1 | ● | ● | 3(1) | 7(1) | 12(1) |
| 0,1,2 | ● | ● | ● | 6(2) | 11(2) |
| 0,1,2,3 | ● | ● | ● | ● | 10(3) |
| 0,1,2,3,4 | ● | ● | ● | ● | ● |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sommets | 0 | 1 | 2 | 3 | 4 |
| CC | 0 | 0,1 | 0,1,2 | 0,1,2,3 | 0,1,2,3,4 |
| Distance | 0 | 1 | 3 | 6 | 10 |

Graphe 8 en partant de 3 :

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CC | 0 | 1 | 2 | 3 | 4 | 5 |
| 3 | 1(3) | ∞ | 3(3) | 0(3) | 4(3) | ∞ |
| 3,0 | ● | 11(0) | 3(3) | ● | 4(3) | 7(0) |
| 3,0,2 | ● | 11(0) | ● | ● | 4(3) | 7(0) |
| 3,0,2,4 | ● | 11(0) | ● | ● | ● | 7(0) |
| 3,0,2,4,5 | ● | 11(0) | ● | ● | ● | ● |
| 3,0,2,4,5,1 | ● | ● | ● | ● | ● | ● |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sommets | 0 | 1 | 2 | 3 | 4 | 5 |
| CC | 3,0 | 3,0,1 | 3,2 | 3 | 3,4 | 3,0,4 |
| Distance | 1 | 11 | 3 | 0 | 4 | 7 |

Graphe 9 en partant de 1 :

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CC | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | ∞ | 0(1) | ∞ | 4(1) | ∞ | 0(1) | ∞ | ∞ |
| 1,5 | ∞ | ● | ∞ | 4(1) | ∞ | ● | 2(5) | ∞ |
| 1,5,6 | ∞ | ● | 5(5) | 4(1) | ∞ | ● | ● | 4(5) |
| 1,5,6,3 | ∞ | ● | 5(5) | ● | ∞ | ● | ● | 4(5) |
| 1,5,6,3,7 | ∞ | ● | 5(5) | ● | ∞ | ● | ● | ● |
| 1,5,6,3,7,2 | ∞ | ● | ● | ● | ∞ | ● | ● | ● |
| 1,5,6,3,7,2 | ∞ | ● | ● | ● | ∞ | ● | ● | ● |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sommets | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| CC | / | 1 | 1,5,2 | 1,3 | / | 1,5 | 1,5,6 | 1,5,7 |
| Distance | ∞ | 0 | 5 | 4 | ∞ | 0 | 2 | 4 |

Bellman :

Graphe 1 en partant de 0 :

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| k=1 | 0(0) | 5(0) | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ |
| 2 | 0(0) | 5(0) | 5(1) | ∞ | 10(1) | 6(1) | ∞ | ∞ |
| 3 | 0(0) | 5(0) | 5(1) | ∞ | 8(5) | 6(1) | 6(2ou5) | ∞ |
| 4 | 0(0) | 5(0) | 5(1) | ∞ | 8(5) | 6(1) | 6(2ou5) | 10(6) |
| 5 | 0(0) | 5(0) | 5(1) | 11(7) | 8(5) | 6(1) | 6(2ou5) | 10(6) |
| 6 | 0(0) | 5(0) | 5(1) | 11(7) | 8(5) | 6(1) | 6(2ou5) | 10(6) |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sommets | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| CC | 0 | 0,1 | 0,1,2 | 0,1,2,6,7,3 | 0,1,5,4 | 0,1,5 | 0,1,2ou5,6 | 0,1,2,6,7 |
| Distance | 0 | 5 | 5 | 11 | 8 | 6 | 6 | 10 |

Graphe 2 en partant de 6 :

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| K=1 | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | 0(6) | 4(6) |
| 2 | ∞ | ∞ | ∞ | 5(7) | ∞ | ∞ | 0(6) | 4(6) |
| 3 | ∞ | ∞ | 7(3) | 5(7) | ∞ | ∞ | -1(3) | 4(6) |
| 4 | ∞ | ∞ | 7(3) | 5(7) | ∞ | ∞ | -1(3) | 3(6) |
| 5 | ∞ | ∞ | 7(3) | 4(7) | ∞ | ∞ | -1(3) | 3(6) |
| 6 | ∞ | ∞ | 6(3) | 4(7) | ∞ | ∞ | -2(3) | 3(6) |
| 7 | ∞ | ∞ | 6(3) | 4(7) | ∞ | ∞ | -2(3) | 2(6) |
| 8 | ∞ | ∞ | 6(3) | 3(7) | ∞ | ∞ | -2(3) | 2(6) |

Pas de CC car circuit absorbant.

Graphe 7 en partant de 0 :

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 0 | 1 | 2 | 3 | 4 |
| K=1 | 0(0) | 1(0) | 4(0) | 8(0) | 13(0) |
| 2 | 0(0) | 1(0) | 3(1) | 7(1) | 12(1) |
| 3 | 0(0) | 1(0) | 3(1) | 6(2) | 11(2) |
| 4 | 0(0) | 1(0) | 3(1) | 6(2) | 10(3) |
| 5 | -1(4) | 1(0) | 3(1) | 6(2) | 10(3) |

Pas de CC car circuit absorbant.

Graphe 10 en partant de 4 :

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 0 | 1 | 2 | 3 | 4 | 5 |
| K=1 | 5(4) | ∞ | ∞ | 1(4) | 0(4) | ∞ |
| 2 | 5(4) | 10(0) | 2(3) | 1(4) | 0(4) | ∞ |
| 3 | 5(4) | 3(2) | 2(3) | 1(4) | 0(4) | ∞ |
| 4 | 5(4) | 3(2) | 2(3) | 1(4) | -2(1) | ∞ |
| 5 | 3(4) | 3(2) | 2(3) | -1(4) | -2(1) | ∞ |
| 6 | 3(4) | 3(2) | 0(3) | -1(4) | -2(1) | ∞ |

Pas de CC car circuit absorbant.