Universidad Simón Bolívar

Departamento de Computación y Tecnología de la Información

Inteligencia Artificial I

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Proyecto 3: Constraint Programming

**Problema 1**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** |
| **Valor** | 5 | 4 | 3 | 7 | 6 | 2 | 9 | 8 | 1 |

**Tiempo:** 270 msec

**Problema 2**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Tablero** | | | | | | |
| 6 | 1 | 2 | 3 | 4 | 7 | 5 |
| 1 | 5 | 6 | 4 | 7 | 2 | 3 |
| 7 | 2 | 4 | 1 | 5 | 3 | 6 |
| 4 | 7 | 3 | 6 | 1 | 5 | 2 |
| 3 | 4 | 5 | 2 | 6 | 1 | 7 |
| 2 | 6 | 7 | 5 | 3 | 4 | 1 |
| 5 | 3 | 1 | 7 | 2 | 6 | 4 |

**Tiempo:** 207 msec

**Problema 3**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** | **J** |
| **Valor** | 5 | 0 | 1 | 2 | 3 | 4 | 9 | 8 | 7 | 6 |

**Resultado de la diferencia:** 50123 - 49876 = 247

**Tiempo:** 9s 886msec

**Problema 4**

a. (m,3,6) : m = 3

Los pisos donde llega cada ascensor:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Pisos** | **1** | **2** | **3** | **4** | **5** | **6** |
| **Ascensor 1** | X |  | X | X | X | X |
| **Ascensor 2** | X | X | X |  | X | X |
| **Ascensor 3** | X | X | X | X |  | X |

**Tiempo:** 440 msec

b. (m,4,6) : m = 1

Los pisos donde llega el ascensor:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Pisos** | **1** | **2** | **3** | **4** | **5** | **6** |
| **Ascensor 1** | X | X | X | X | X | X |

Tiempo: 348 msec

c. (m,3,8) ????

d. (m,4,8) : m = 3

Los pisos donde llega cada ascensor:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pisos** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| **Ascensor 1** | X |  |  | X | X | X | X | X |
| **Ascensor 2** | X | X | X |  |  | X | X | X |
| **Ascensor 3** | X | X | X | X | X |  |  | X |

**Tiempo:** 3s 976msec

e. (m,5,8) : m = 3

Los pisos donde llega cada ascensor:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pisos** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| **Ascensor 1** |  | X | X | X | X | X | X | X |
| **Ascensor 2** | X | X | X | X | X |  | X | X |
| **Ascensor 3** | X | X | X | X | X | X |  | X |

**Tiempo:** 1s 6msec