**Gold Mining**

10 3 5

5 3 4 8 6 2 9 1 4 5

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1. ***Quy hoạch động***

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Index | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| A | 5 | 3 | 4 | 8 | 6 | 2 | 9 | 1 | 4 | 5 |
| Dp | 5 | 3 | 4 | 13 | 11 | 7 | 22 | 14 | 17 | 27 |

* I = 1: dp[1] = 5
* I = 2: dp[2] = 3
* I = 3: dp[3] = 4
* I = 4: dp[4] = a[4] + F[4] = 8 + 5 = 13
* I = 5: dp[5] = a[5] + F[5] = 6 + 5 = 11
* I = 6: dp[6] = a[6] + F[6] = 2 + 5 = 7
* I = 7: dp[7] = a[7] + F[7] = 9 + 13 = 22
* I = 8: dp[8] = a[8] + F[8] = 1 + 13 = 14
* I = 9: dp[9] = a[9] + F[9] = 4 + 13 = 17
* I = 10: dp[10] = a[10] + F[10] = 5 + 22 = 27
* Đáp án là **max của dp = 27**

10 3 5

5 3 4 8 6 2 9 1 4 5

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Index | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| A | 5 | 3 | 4 | 8 | 6 | 2 | 9 | 1 | 4 | 5 |
| Dp | 5 | 3 | 4 | 13 | 11 | 7 | 22 | 14 | 17 | 27 |

1. ***Hàng đợi 2 chiều***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 |  |  |  |  |  |  |  |
| 5 | 3 | 4 |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 3 | 4 |  |  |  |  |  |  |  |
| 5 | 4 | 13 |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | 5 | 6 | 7 |  |  |  |  |  |  |
| 13 | 11 | 7 | 22 |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 |  |  |  |  |  |  |  |  |  |
| 22 |  |  |  |  |  |  |  |  |  |