

## Test Cases:

| NODE | NODE | DISTANCE |
|------|------|----------|
| 65   | 1    | 2461     |
| 1    | 2    | 600      |
| 4    | 3    | 1140     |
| 12   | 4    | 89       |
| 0    | 5    | 237      |
| 79   | 6    | 510      |
| 8    | 7    | 153      |
| 73   | 8    | 120      |
| 23   | 9    | 357      |
| 9    | 10   | 361      |
| 9    | 11   | 906      |
| 41   | 12   | 937      |
| 14   | 13   | 134      |
| 67   | 14   | 150      |
| 29   | 15   | 259      |
| 17   | 16   | 183      |
| 39   | 17   | 283      |
| 19   | 18   | 406      |
| 32   | 19   | 93       |
| 21   | 20   | 129      |
| 87   | 21   | 162      |
| 88   | 22   | 143      |
| 28   | 23   | 45       |
| 23   | 24   | 593      |
| 10   | 25   | 359      |
| 53   | 26   | 1370     |
| 40   | 27   | 370      |
| 27   | 28   | 317      |
| 24   | 29   | 352      |
| 31   | 30   | 436      |
| 10   | 31   | 558      |
| 33   | 32   | 503      |
| 75   | 33   | 380      |
| 4    | 34   | 411      |
| 53   | 35   | 199      |
| 40   | 36   | 272      |
| 36   | 37   | 250      |
| 37   | 38   | 263      |
| 42   | 39   | 120      |

|    |    |      |
|----|----|------|
| 39 | 40 | 923  |
| 18 | 41 | 942  |
| 5  | 42 | 88   |
| 38 | 43 | 252  |
| 49 | 44 | 142  |
| 44 | 45 | 234  |
| 29 | 46 | 308  |
| 17 | 47 | 453  |
| 44 | 48 | 422  |
| 22 | 49 | 146  |
| 22 | 50 | 346  |
| 35 | 51 | 46   |
| 13 | 52 | 129  |
| 12 | 53 | 612  |
| 52 | 54 | 280  |
| 98 | 55 | 84   |
| 21 | 56 | 277  |
| 58 | 57 | 670  |
| 20 | 58 | 204  |
| 64 | 59 | 1400 |
| 41 | 60 | 400  |
| 6  | 61 | 424  |
| 63 | 62 | 147  |
| 61 | 63 | 866  |
| 72 | 64 | 504  |
| 59 | 65 | 993  |
| 14 | 66 | 153  |
| 73 | 67 | 557  |
| 58 | 68 | 140  |
| 82 | 69 | 565  |
| 18 | 70 | 2466 |
| 20 | 71 | 352  |
| 43 | 72 | 518  |
| 74 | 73 | 152  |
| 53 | 74 | 134  |
| 15 | 75 | 585  |
| 34 | 76 | 1978 |
| 33 | 77 | 385  |
| 0  | 78 | 272  |
| 2  | 79 | 133  |
| 5  | 80 | 409  |
| 8  | 81 | 236  |
| 10 | 82 | 338  |
| 13 | 83 | 125  |

|    |     |     |
|----|-----|-----|
| 13 | 84  | 164 |
| 15 | 85  | 199 |
| 20 | 86  | 80  |
| 52 | 87  | 158 |
| 35 | 88  | 128 |
| 24 | 89  | 268 |
| 25 | 90  | 362 |
| 26 | 91  | 432 |
| 31 | 92  | 337 |
| 32 | 93  | 417 |
| 36 | 94  | 806 |
| 37 | 95  | 656 |
| 42 | 96  | 175 |
| 43 | 97  | 273 |
| 47 | 98  | 258 |
| 59 | 99  | 955 |
| 72 | 100 | 880 |
| 75 | 101 | 475 |

Minimum distance= 44424