

```

#include <stdio.h>
#include <limits.h>

#define N 4

int dist[N][N]={
    {0,10,15,20},
    {10,0,35,25},
    {15,35,0,30},
    {20,25,30,0}
};

int tsp(int mask, int pos) {
    if (mask == (1 << N) - 1) {
        return dist[pos][0];
    }

    int minCost= INT_MAX;
    int city;

    for (city = 0; city < N; city++) {
        if ((mask & (1 << city)) == 0)
        {
            int newCost= dist[pos][city]+tsp(mask | (1
<< city),city);
            if(newCost<minCost)
            {
                minCost=newCost;
            }
        }
    }

    return minCost;
}

int main() {
    int result = tsp(1, 0);

    printf("\nMinimum cost: %d\n", result);

    return 0;
}

```