

Manhattan distance

```
def manhattan(state, target):
```

```
    dist = 0
```

```
    for i in state:
```

```
        d1, d2 = state.index(i), state target.index(i)
```

```
        x1, y1 = d1 // 3, d1 % 3
```

```
        x2, y2 = d2 // 3, d2 % 3
```

```
        dist +=
```

```
        dist += abs(x2 - x1) + abs(y2 - y1)
```

```
    return dist
```