

```
#include <iostream>

using namespace std;
```

```
char board[3][3] = {
    '1','2','3',
    '4','5','6',
    '7','8','9'
};
```

```
void displayBoard() {
    printf("-----\n");
    for (int i = 0; i < 3; i++) {
        for (int j = 0; j < 3; j++) {
            printf(" | %c |", board[i][j]);
        }
        printf("\n");
        printf("-----\n");
    }
}
```

```
void mark(char markA, int choice) {
    int row = (choice - 1) / 3;
    int col = (choice - 1) % 3;

    if (board[row][col] != 'X' && board[row][col] != 'O') {
        board[row][col] = markA;
    } else {
        cout << "Spot already taken! Try again.\n";
    }
}
```

```
displayBoard();
```

```
}
```

```
char checkWin() {
```

```
    for (int i = 0; i < 3; i++) {
```

```
        if (board[i][0] == board[i][1] && board[i][1] == board[i][2])
```

```
            return board[i][0];
```

```
    }
```

```
    for (int j = 0; j < 3; j++) {
```

```
        if (board[0][j] == board[1][j] && board[1][j] == board[2][j])
```

```
            return board[0][j];
```

```
    }
```

```
    if (board[0][0] == board[1][1] && board[1][1] == board[2][2])
```

```
        return board[0][0];
```

```
    if (board[0][2] == board[1][1] && board[1][1] == board[2][0])
```

```
        return board[0][2];
```

```
    return ' ';
```

```
}
```

```
int main() {
```

```
    char markA = 'X';
```

```
    displayBoard();
```

```
    for (int turn = 0; turn < 9; turn++) {
```

```
        int choice;
```

```
        cout << "Player " << markA << ", choose a spot: ";
```

```
        cin >> choice;
```

```
mark(markA, choice);
```

```
char winner = checkWin();
```

```
if (winner == 'X' || winner == 'O') {
```

```
    cout << "Player " << winner << " wins!\n";
```

```
    return 0;
```

```
}
```

```
markA = (markA == 'X') ? 'O' : 'X';
```

```
}
```

```
cout << "It's a draw!\n";
```

```
return 0;
```

```
}
```