#include<iostream>

#include<iomanip>

using namespace std;

int im = 3, ic = 3, i, j, fm = 0, fc = 0, status = 0, flag = 0, select = 0;

void display(char bpass1, char bpass2)

{

cout << "\n\n\n";

for (int i = 0; i < fm; i++)

{

cout<<" M ";

}

for (int i = 0; i < fc; i++)

{

cout<< " C ";

}

if (flag == 0)

cout<< " \_\_\_\_\_\_\_\_\_\_WATER\_\_\_\_\_\_\_\_\_\_\_B0(" << bpass1 << "," << bpass2 << ")AT ";

else

cout<< " BO(" << bpass1 << "," << bpass2 << ")AT\_\_\_\_\_\_\_\_\_\_WATER\_\_\_\_\_\_\_\_\_\_\_ ";

for (int i = 0; i < im; i++)

{

cout<< " M ";

}

for (int i = 0; i < ic; i++)

{

cout<< " C ";

}

}

int win()

{

if (fc == 3 && fm == 3)

{

return 0;

}

else

{

return 1;

}

}

void solution()

{

while (win())

{

if (flag == 0)

{

switch (select)

{

case 1:display('C', ' ');

ic++;

break;

case 2:display('C', 'M');

ic++;

im++;

break;

}

if (((im - 2) >= ic && (fm + 2) >= fc) || (im - 2) == 0)

{

im = im - 2;

select = 1;

display('M', 'M');

flag = 1;

}

else if ((ic - 2) < im && (fm == 0 || (fc + 2) <= fm) || im == 0)

{

ic = ic - 2;

select = 2;

display('C', 'C');

flag = 1;

}

else if ((ic--) <= (im--) && (fm++) >= (fc++))

{

ic = ic - 1;

im = im - 1;

select = 3;

display('M', 'C');

flag = 1;

}

}

else

{

switch (select)

{

case 1:display('M', 'M');

fm = fm + 2;

break;

case 2:display('C', 'C');

fc = fc + 2;

break;

case 3:display('M', 'C');

fc = fc + 1;

fm = fm + 1;

break;

}

if (win())

{

if (((fc > 1 && fm == 0) || im == 0))

{

fc--;

select = 1;

display('C', ' ');

flag = 0;

}

else if ((ic + 2) > im)

{

fc--;

fm--;

select = 2;

display('C', 'M');

flag = 0;

}

}

}

}

}

int main()

{

cout << "MISSIONARIES AND CANNIBAL";

display(' ',' ');

solution();

display(' ',' ');

cout << "\n\n";

return 0;

}