

Lab 4 Solution

bestmove

```
function y=bestmove(count)
if mod(count,4)==0
    y=3
elseif mod((count-1),4)==0
    y=ceil(3*rand)
    %Round is biased. The extremities show up half as much.
elseif mod((count-2),4)==0
    y=1
else
    y=2
end
```

randommove

```
function y=randommove(count)
y=ceil(3*rand)
```

playgame

```
function w=playgame(count,strategy1,strategy2)
w=0;
while count>0;
    count=count-feval(strategy1,count)
    if count >0;
        count=count-feval(strategy2,count)
    else
        w=2;
    end
end
if w==2;
    w
else
    w=1
end
```

humanplayer

```
function y=humanplayer(count)
y=0
while y==0
    fprintf('There are %f coins on the table. You may take between 1 and 3 coins.\n',count)
    y=input('How many coins would you like to take?')
    if y==1
        y=y
    elseif y==2
        y=y
    elseif y==3
        y=y
    else y=0
        fprintf('\n Dont break the rules!\n')
    end
end
end
%This does not allow the user to break the rules.
```