

```
function [v_tmp] =  
jcr_rhs_state_value_bellman(na,nb,ntrans,V,gamma,Ra,Pa,Rb,Pb,max_num_cars_can_transfer)  
% RHS_STATE_VALUE_BELLMAN - computes the right hand side of the bellman equation  
%  
% We have to consider the possible number of rentals at sites A/B  
%           and the possible number of returns at sites A/B  
%  
% Written by:  
% --  
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%  
% Please send comments and especially bug reports to the  
% above email address.  
%  
%-----  
  
% the maximum number of cars at each site (assume equal):  
max_n_cars = size(V,1)-1;  
  
% restrict this action:  
ntrans = max(-nb,min(ntrans,na));  
ntrans = max(-max_num_cars_can_transfer,min(+max_num_cars_can_transfer,ntrans));  
  
v_tmp    = -2*abs(ntrans);  
na_morn  = na-ntrans;  
nb_morn  = nb+ntrans;  
  
for nna=0:max_n_cars,  
    for nnb=0:max_n_cars,  
        pa = Pa(na_morn+1,nna+1);  
        pb = Pb(nb_morn+1,nnb+1);  
        v_tmp = v_tmp + pa*pb* ( Ra(na_morn+1) + Rb(nb_morn+1) + gamma*V(nna+1,nnb+1) );  
    end  
end
```