

Cody Problem 14. Find the numeric mean of the prime numbers in a matrix

There will always be at least one prime in the matrix.

Example:

```
% Input  in = [ 8 3
%           5 9 ]
% Output out is 4 or (3+5)/2
```

Scratch Pad

```
in = [8,3;5,9];
meanOfPrimes(in)
```

```
ans = 4
```

```
in = 3;
meanOfPrimes(in)
```

```
ans = 3
```

```
in = [3,3;3,3];
meanOfPrimes(in)
```

```
ans = 3
```

Solution

```
function out = meanOfPrimes(in)
    % Check if there are any prime numbers, if not return 0 or NaN
    if isempty(in(isprime(in)))
        out = 0; % or NaN, depending on what you want to indicate
    else
        % Calculate and return the mean of the prime elements
        out = mean(in(isprime(in)));
    end
end
```