

```
% 1.convert to column vector
```

```
m = [ 3 ;7 ;5 ;2];
m(:).';
```

```
% 2.convert to row vector
```

```
m = [ 3 ;7 ;5 ;2];
m(:);
```

```
% 3. Example: v: 3 7 5 2 Your output: 3/7+5/2=41/14
```

```
fprintf('%d/%d+%d/%d=%d/%d\n', m, m(1)*m(4)+m(2)*m(3),
m(2)*m(4));
```

```
% 4.Compute 1/1 + 1/2 + 1/3 + ... + 1/999 + 1/1000.
```

```
m = 1./(1:1000);
sum(m);
```

```
% 5.Compute 1 + 1/1! + 1/2! + 1/3! + ... + 1/100!.
```

```
(Note: cumprod is useful here.) Compare
%the result with exp(1).
```

```
m = 1./[1 cumprod(1:100)];
sum(m);
```

```
% 6 Make nxn matrices (n given in a variable) that look
like all zeros surrounded by a layer of ones.
```

```
n=5;
m = ones(n);
m(2:n-1,2:n-1) = 0;
```

```
% 7. Make nxn diagonal matrices (n given in a variable)
that where the diagonal values are 1 to n. Hint: First
%determine the linear indices of the diagonal elements.
```

```
n=5;
m=eye(n);
m(find(m)) = 1:n;
```