```
% Joseph R. Palicke
% Lab 10 Pt 2

sig = repmat([3 3 1 3 3 3 3 3 2 3],1,2)   % Data to encode
symbols = [1 2 3];                        % Distinct data symbols
 appearing in sig
p = [0.1 0.1 0.8];                        % Probability of each data
 symbol
dict = huffmandict(symbols,p);           % Create the dictionary
hcode = huffmanenco(sig,dict)           % Encode the data
dhsig = huffmandeco(hcode,dict)         % Decode the code

[sig(:) dhsig(:)]
hcode
```

```
sig =

  Columns 1 through 13

     3     3     1     3     3     3     3     3     2     3     3
 3     1

  Columns 14 through 20

     3     3     3     3     3     2     3


hcode =

  Columns 1 through 13

     0     0     1     1     0     0     0     0     0     1     0
 0     0

  Columns 14 through 24

     0     1     1     0     0     0     0     0     1     0     0


dhsig =

  Columns 1 through 13

     3     3     1     3     3     3     3     3     2     3     3
 3     1

  Columns 14 through 20

     3     3     3     3     3     2     3
```

```
ans =

     3     3
     3     3
     1     1
     3     3
     3     3
     3     3
     3     3
     3     3
     2     2
     3     3
     3     3
     3     3
     1     1
     3     3
     3     3
     3     3
     3     3
     3     3
     2     2
     3     3


hcode =

  Columns 1 through 13

     0     0     1     1     0     0     0     0     0     1     0
 0     0

  Columns 14 through 24

     0     1     1     0     0     0     0     0     1     0     0
```

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