```
                                                      ___  ____  ____  ____  ____(R)
                                                     /__    /   ____/   /   ____/
                                                    ___/   /   /___/   /   /___/
                                                      Statistics/Data Analysis

      ___  ____  ____  ____  ____ (R)
     /__    /   ____/   /   ____/
    ___/   /   /___/   /   /___/   15.1  Copyright 1985-2017 StataCorp LLC
      Statistics/Data Analysis           StataCorp
                                         4905 Lakeway Drive
          Special Edition                College Station, Texas 77845 USA
                                         800-STATA-PC        http://www.stata.com
                                         979-696-4600        stata@stata.com
                                         979-696-4601 (fax)

  22-student Stata lab perpetual license:
         Serial number:  401506229836
           Licensed to:  Map and Data
                         University of Toronto

  Notes:
        1.  Unicode is supported; see help unicode_advice.
        2.  Maximum number of variables is set to 5000; see help set_maxvar.

  running C:\Users\MDW620-CAF\Documents\profile.do ...

1 . do "C:\Users\MDW620-CAF\Documents\Tianhao.do"

2 . use C:\Users\MDW620-CAF\Downloads/hw1data.dta, clear

3 .
4 . logit y i.x1 i.x2 i.x3 x4 x5 x6

  Iteration 0:   log likelihood = -82.760511
  Iteration 1:   log likelihood =  -30.57662
  Iteration 2:   log likelihood = -28.750296
  Iteration 3:   log likelihood = -28.672363
  Iteration 4:   log likelihood = -28.672342
  Iteration 5:   log likelihood = -28.672342

  Logistic regression                               Number of obs     =        120
                                                    LR chi2(6)        =     108.18
                                                    Prob > chi2       =     0.0000
  Log likelihood = -28.672342                       Pseudo R2         =     0.6536

------------------------------------------------------------------------------
           y |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         1.x1 |   3.415127   .9586819     3.56   0.000     1.536145    5.294109
         1.x2 |  -5.768404   1.321964    -4.36   0.000    -8.359406   -3.177402
         1.x3 |   4.609453   1.064614     4.33   0.000     2.522848    6.696058
           x4 |   1.544106   .4804108     3.21   0.001      .602518    2.485694
           x5 |  -4.106603   .9933383    -4.13   0.000    -6.053511   -2.159696
           x6 |   .5345794   .2733479     1.96   0.051    -.0011727    1.070331
        _cons |  -1.565264   .8618573    -1.82   0.069    -3.254473    .1239449
------------------------------------------------------------------------------

5 . margin, dydx(i.x2)

  Average marginal effects                          Number of obs     =        120
  Model VCE    : OIM

  Expression   : Pr(y), predict()
  dy/dx w.r.t. : 1.x2
```

	Delta-method dy/dx	Std. Err.	z	P>|z|	[95% Conf.	Interval]
1.x2	**-.4268979**	**.0440885**	**-9.68**	**0.000**	**-.5133099**	**-.3404859**

Note: dy/dx for factor levels is the discrete change from the base level.

```
6 . margin, dydx(x5)
```

Average marginal effects Number of obs = **120**
Model VCE : **OIM**

Expression : **Pr(y), predict()**
dy/dx w.r.t. : **x5**

	Delta-method dy/dx	Std. Err.	z	P>|z|	[95% Conf.	Interval]
x5	**-.3063677**	**.0407848**	**-7.51**	**0.000**	**-.3863045**	**-.226431**

```
7 .
8 . probit y i.x1 i.x2 i.x3 x4 x5 x6
```

Iteration 0: log likelihood = **-82.760511**
Iteration 1: log likelihood = **-30.299996**
Iteration 2: log likelihood = **-28.400517**
Iteration 3: log likelihood = **-28.336254**
Iteration 4: log likelihood = **-28.336104**
Iteration 5: log likelihood = **-28.336104**

Probit regression Number of obs = **120**
LR chi2(**6**) = **108.85**
Prob > chi2 = **0.0000**
Log likelihood = **-28.336104** Pseudo R2 = **0.6576**

y	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
1.x1	**2.011708**	**.5337449**	**3.77**	**0.000**	**.9655868**	**3.057828**
1.x2	**-3.323863**	**.7132776**	**-4.66**	**0.000**	**-4.721861**	**-1.925864**
1.x3	**2.656909**	**.5679074**	**4.68**	**0.000**	**1.543831**	**3.769987**
x4	**.9049947**	**.2688554**	**3.37**	**0.001**	**.3780479**	**1.431941**
x5	**-2.380636**	**.550527**	**-4.32**	**0.000**	**-3.459649**	**-1.301623**
x6	**.3098398**	**.1558339**	**1.99**	**0.047**	**.004411**	**.6152687**
_cons	**-.9246096**	**.4787586**	**-1.93**	**0.053**	**-1.862959**	**.0137399**

Note: 8 failures and 3 successes completely determined.

```
9 . margin, dydx(i.x2)
```

Average marginal effects Number of obs = **120**
Model VCE : **OIM**

Expression : **Pr(y), predict()**
dy/dx w.r.t. : **1.x2**

	Delta-method dy/dx	Std. Err.	z	P>|z|	[95% Conf.	Interval]
1.x2	**-.4265715**	**.0432721**	**-9.86**	**0.000**	**-.5113833**	**-.3417598**

Note: dy/dx for factor levels is the discrete change from the base level.

```
10 . margin, dydx(x5)

Average marginal effects                        Number of obs     =        120
Model VCE    : OIM

Expression   : Pr(y), predict()
dy/dx w.r.t. : x5
```

	dy/dx	Delta-method Std. Err.	z	P>|z|	[95% Conf.	Interval]
x5	**-.3081857**	**.0412259**	**-7.48**	**0.000**	**-.3889869**	**-.2273845**

```
11 .
end of do-file

12 .
```