

Aaron Klapheck .....	1
Data .....	1
Plot Data.....	1

## Aaron Klapheck

```
% Qui zz 2      due: 6-Feb-08
clear, clc, home
fprintf('Date and time: %s \n', datestr(now))
```

Date and time: 05-Feb-2008 15:02:02

## Data

```
% Coplied and pasted from excel .

% Formulas used to find a and b:
% a = (sum(x^2)*sum(y)-sum(x)*sum(x*y))/(n*sum(x^2)-(sum(x))^2)
% b = (n*sum(x*y)-sum(x)*sum(y))/(n*sum(x^2)-(sum(x))^2)
```

Measurement	Air velocity	Evaporation coefficient			
variable	x	y	x*y	x^2	y^2
	20	0.18	3.6	400	0.0324
	60	0.37	22.2	3600	0.1369
	100	0.35	35	10000	0.1225
	140	0.78	109.2	19600	0.6084
	180	0.56	100.8	32400	0.3136
	220	0.75	165	48400	0.5625
	260	1.18	306.8	67600	1.3924
	300	1.36	408	90000	1.8496
	340	1.17	397.8	115600	1.3689
Data points	380	1.65	627	144400	2.7225
summation	2000	8.35	2175.4	532000	9.1097

a	b
0.069242	0.0038288

## Plot Data

```
% Load data from excel to MATLAB
D = xlsread('Qui z_2');

% store the x data points to the vector x
x = D(1:10,1)';

% store the y data points to the vector y
y = D(1:10,2);

% creat the regression line
xLine = [0:0.1:400];
a = 0.069242; b = 0.0038288;
yLine = a + b*xLine;
```

```
% Graph the data points, x and y, as dots. Overlay this graph with the  
% regression line.  
plot(x, y, 'o', xLine, yLine), title('Liner Regression'), ...  
xlabel('Air velocity (cm/sec)'), ...  
ylabel('Evaporation coefficient(mm^2/sec)')
```

