Aaron Klapheck 60 nice job

```
% Qizz 2    qizz????
clear, clc
date
```

```
ans =

08-Oct-2007
```

Problem 1.

```
% For the matrix Work_Week: The three columns correspond to three
% weeks of work (time measured in hours). The rows correspond to Alfred,
% Bud, and Chuck (in decending order).
Work_Week = [40, 41, 32; 42, 40, 32; 30, 32, 24]

% For the matrix Hourly_Wages: Each row is the amount of money (in
% dollars) made by Alfred, Bud, and Chuck per hour.
Hourly_Wages = [7.5, 8.25, 9.5]


% a.
Money_Alfred  = sum(Work_Week(1, :).*Hourly_Wages(1))
Money_Bud  = sum(Work_Week(2, :).*Hourly_Wages(2))
Money_Chuck  = sum(Work_Week(3, :).*Hourly_Wages(3))      OK, nice

% b. For Payroll_Per_Week: the columns represent total amount payed
% to each worker to per week.
Payroll_Per_Week = Hourly_Wages*Work_Week                  OK


% c.
Total_Expence = sum(Payroll_Per_Week)                       OK
```

```
Work_Week =

    40    41    32
    42    40    32
    30    32    24


Hourly_Wages =

    7.5000    8.2500    9.5000


Money_Alfred =

  847.5000


Money_Bud =

  940.5000


Money_Chuck =

   817
```

```
Payroll_Per_Week =

  931.5000  941.5000  732.0000

Total_Expence =

        2605
```

Problem 2

```
% For Five_Sprigs: The columns represent springs 1 through five.
% The row is the spring constant(k) (measured in N).
k_Five_Sprigs = [1000, 800, 900, 1200, 700]


% For Five_Sprigs: The columns represent springs 1 through five.
% The row is the Compression(x) (measured in meters)
x_Five_Sprigs = [11, 8.8, 8.9, 8.3, 12.9].*1E-3


% a. For Force_of_Compression: Each row gives the force needed
% to compress springs 1 through 5 by an amount x (measured in N).
Force_of_Compression = k_Five_Sprigs.*x_Five_Sprigs        OK


% b. For Potential_Energy: Each row gives the potential energy used
% to compress springs 1 through 5 by an amount x (measured in J).
Potential_Energy = (k_Five_Sprigs.*((x_Five_Sprigs).^2))/2   OK


% c.
[Most_Energy, index] = max(Potential_Energy)         OK


% d.
[Least_Energy, index] = min(Potential_Energy)        OK


% e.
Total_Energy = sum(Potential_Energy)                 OK


k_Five_Sprigs =

        1000         800         900        1200         700

x_Five_Sprigs =

    0.0110    0.0088    0.0089    0.0083    0.0129

Force_of_Compression =

   11.0000    7.0400    8.0100    9.9600    9.0300

Potential_Energy =

    0.0605    0.0310    0.0356    0.0413    0.0582

Most_Energy =

    0.0605

index =

     1

Least_Energy =
```

```
    0.0310

index =

     2

Total_Energy =

    0.2267
```

Problem 3.

```
[X, Y] = meshgrid([1, 3, 5], [2, 4, 6, 8])
Areas = X.*Y
```

OK

```
X =

     1     3     5
     1     3     5
     1     3     5
     1     3     5

Y =

     2     2     2
     4     4     4
     6     6     6
     8     8     8

Areas =

     2     6    10
     4    12    20
     6    18    30
     8    24    40
```