Table of Contents

Grade Data Assignment

Nolan Anderson ENG 101 1/23/2019

```
clc
clear
```

Given Data

```
students = 1:1:12;
ex1 = [100 80 25 45 89 65 92 75 76 25 80 50];
ex2 = [88 95 55 60 81 25 70 100 95 70 72 10];
```

Exam 1 80-89

```
question1 = sum(ex1>=80 & ex1<=89); % Finds the number of students
 that got between a 80 and 89 on exam 1
fprintf('%x Students scored between 80 and 89 on exam one.\n',
 question1)
```

3 Students scored between 80 and 89 on exam one.

Exam 2 Greater than 70

```
question2 = sum(ex2>=70); % Finds the number of students that did
 better than a 70 on exam 2
fprintf('%x students scored above 70 on exam two.\n', question2)
```

8 students scored above 70 on exam two.

Average for each exam

```
avgex1 = mean(ex1); % Finds the average for exam 1
fprintf('The average for exam one is a %.2f.\n', avgex1)
avgex2 = mean(ex2); % Finds the average for exam 2
fprintf('The average for exam two is a %.2f.\n', avgex2)
```

The average for exam one is a 66.83.

```
The average for exam two is a 68.42.
```

Students who did better than the avgerage exam 1 & 2.

```
betterthanavg = sum(ex1>=avgex1);  % Finds the number of students that
 did better than the average for exam 1
lowerthanavg = sum(ex2<=avgex2);  % Finds the number of students that
 did worse than the average for exam 2
fprintf('%x Students scored above the average on exam one.\n' ,
 betterthanavg)
fprintf('%x students scored below the average on exam two.\n' ,
 lowerthanavg)
```

```
7 Students scored above the average on exam one.
4 students scored below the average on exam two.
```

Who did better than the average on both / either exam

```
fprintf('The following students scored above the average on both
 exams:\n')
a = ex1>=avgex1 & ex2>=avgex2; % makes a veriable that stores the
 true/false values for who did better than the average
b = students(a) % If a student was found to be true in 'a', this
 assigns that students number with the true value.


fprintf('The following students scored better than the average on
 either exam:')
c = ex1>=avgex1 | ex2>=avgex2; % Stores true false data on who did
 better on either exam than the averge into variable c
d = students(c) % If a student was found to be true in 'c', this
 assigns that students number with the true value.
```

```
The following students scored above the average on both exams:

b =

     1     2     5     7     8     9    11

The following students scored better than the average on either exam:
d =

     1     2     5     7     8     9    10    11
```

Published with MATLAB® R2018b