

```
%Exercise
close all; clear all;

%set grades to micah and chirag
micah = [62, 52, 71, 80, 83];
chirag = [82, 55, 60, 56, 79];

%A. Orange & Blue Scholarship
micah_Pavg = mean(micah);
chirag_Pavg = mean(chirag);
%convert GPA restriction to percentage
orange_req = 57;
blue_req = 66;
%print if user is eligible for Orange Scholarship
if micah_Pavg >= orange_req;
    disp('Micah is eligible for the Orange Scholarship');
end
```

Micah is eligible for the Orange Scholarship

```
if chirag_Pavg >= orange_req;
    disp('Chirag is eligible for the Orange Scholarship');
end
```

Chirag is eligible for the Orange Scholarship

```
%print if user is eligible for Blue Scholarship
if micah_Pavg >= blue_req;
    disp('Micah is eligible for the Blue Scholarship');
end
```

Micah is eligible for the Blue Scholarship

```
if chirag_Pavg >= blue_req;
    disp('Chirag is eligible for the Blue Scholarship');
end
```

Chirag is eligible for the Blue Scholarship

```
%B. Yellow Scholarship
Cplus = 67; %set the lower value of C+ grade
Cm = 0; Cc = 0;
for i=1:length(micah)
    if micah(i) >= Cplus
        Cm = Cm + 1;
    end
    if chirag(i) >= Cplus
        Cc = Cc + 1;
    end
end
end
```

```
%print if user is eligible for Yellow Scholarship
if Cm >= 3;
    disp('Micah is eligible for the Yellow Scholarship');
end
```

Micah is eligible for the Yellow Scholarship

```
if Cc >= 3;
    disp('Chirag is eligible for the Yellow Scholarship');
end
```

%ANSWERS

%Micah is eligible for all three scholarships: Orange, Yellow, Blue

%Chirag is only eligible for Orange and Blue scholarships

%This problem was solved by converting GPA and letter grades to percentage values instead
%of converting percentage values to GPA and letter grades for simplicity. The converted
%percentage values from the scholarship requirements are then compared with the marks
%attained by the students to provide eligibility information on the particular scholarship.