

**Ex:**

Write a Matlab® function called `grades` that prints out the letter grade for a student based on the percent of possible points the student has earned during a semester. Use the classic grade scale used for this course (see Syllabus): 93% or higher = A, 90% or higher = A-, 87% or higher = B+, 83% or higher = B, etc. Some examples of using this function:

```
>> grades(76)
C
>> grades(88)
B+
```

SOL'N:

Grade scale:

Gd	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
%	93	90	87	83	80	77	73	70	67	63	60	<60

```
function grades(score)
% grades(score) Print grade given score in course. Classic scale.

% Tens digit of score determines letter.
tens_dig = floor(score/10);

% Ones digit of score determines whether there is a + or -
ones_dig = floor(score - 10*tens_dig)

% Determine letter grade.
switch tens_dig
    case 9
        letter_grade = 'A';
    case 8
        letter_grade = 'B';
    case 7
        letter_grade = 'C';
    case 6
        letter_grade = 'D';
    otherwise
        letter_grade = 'E';
end

% Determine plus or minus, if any.
if ones_dig < 3 ... % Check for - in gd.
    & tens_dig >= 6 % No E- allowed.
    plus_minus_gd = '-';
elseif ones_dig >= 7 ... % Check for + in gd.
    & tens_dig < 9 & tens_dig >= 6 % No A+ or E+.
    plus_minus_gd = '+';
end

display([letter_grade,plus_minus_gd])
```

end