

**Ex:**

Write a Matlab® function called `tprint` that accepts as an argument an integer called `int_sec` and does the following:

- i) Checks the value of `int_sec` and prints an error message "Err: negative value" if `int_sec` is less than zero.
- ii) Converts `int_sec`, which is a number of seconds, to hours, minutes, and seconds.
- iii) Prints out the time represented by `int_sec` in the format `hh:mm:ss`. Some examples of print out:

```
int_sec = 3643      output = 1:00:43
int_sec = 7         output = 0:00:07
int_sec = 372       output = 0:06:12
int_sec = 36000     output = 10:00:00
```

SOL'N: `function tprint(int_sec)`

```
i)  if int_sec < 0
      display('Err: negative value')
      return
    end

ii) % Determine number of hours.
      hours = floor(int_sec/3600);

      % Subtract hours from time.
      min_sec = int_sec - 3600*hours;

      % Determine number of minutes.
      minutes = floor(min_sec/60)
      % Subtract minutes from time.
      seconds = min_sec - 60*minutes;
```

```

% Use 'for' and switch statement to print 2-digit numbers.
for index = 1:3
    if index == 1
        num = hours;
        time_str = [];
    elseif index == 2
        num = minutes;
        % Put colon between hours and minutes.
        time_str = [time_str, ':'];
    else
        num = seconds;
        % Put colon between minutes and seconds.
        time_str = [time_str, ':'];
    end

    % Determine number of digits in number and create string.
    if num == 0
        num_str = '00';
    elseif num < 10
        num_str = ['0', num2str(num)];
    else
        num_str = num2str(num);
    end

    % Add number string to time string.
    time_str = [time_str, num_str];
end

iii) display(time_str)
return
end

```