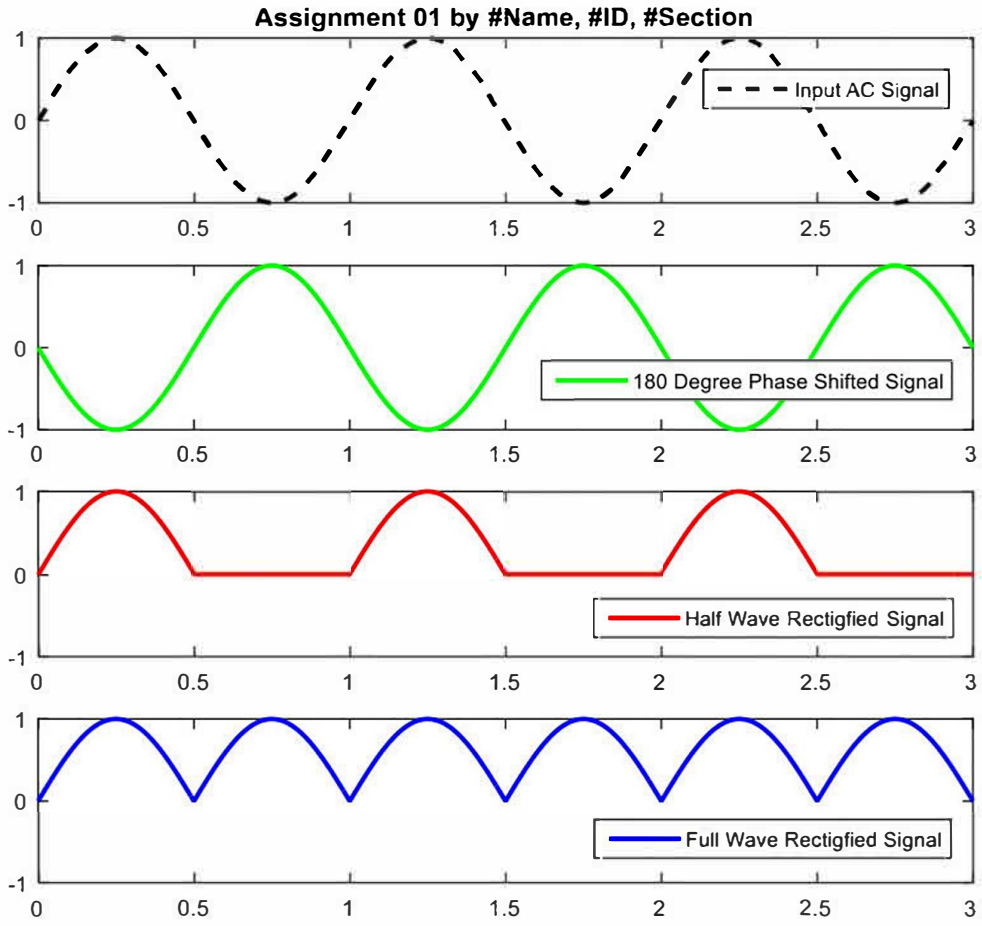
Homework

1. We know that basic sinusoidal signals are oscillating signals. They have both positive and negative cycles. Moreover, a rectifier is a system which converts an AC signal into DC, means the negative cycles of AC signals become either zero (for half wave rectifier) or positive (for full wave rectifier). Now write down a MATLAB code using **loops (for)** and **control statements (if-else)** which will compute a sinusoidal signal. Then the code will shift the phase of AC signal by 180^o. Then the code will rectify the sinusoidal signal like a half wave and full wave rectifier. Finally, it will plot the sinusoidal signal as well as both of the rectified signals. Use subplot to show the graphs. There should be 3 full cycles of input sinusoidal signal. The output graphs should be like this:



2. Write down a MATLAB code that will plot two graphs exactly similar to this: