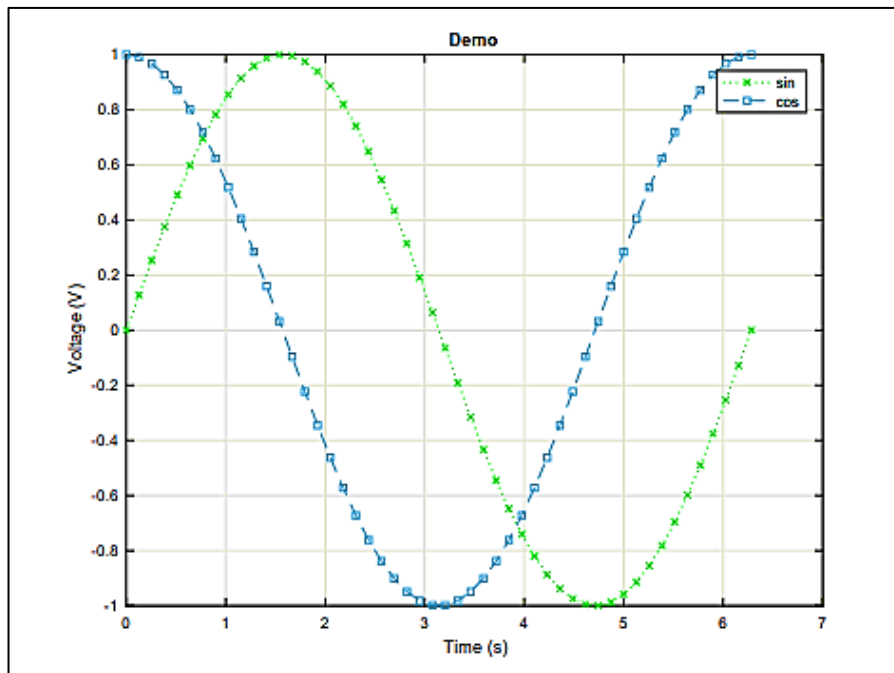


ME 444 MATLAB FOR ENGINEERS

Practice 09- Graphic Operations in MATLAB

1. Write a Matlab program that will graph the function $y = x^2 - 9x - 20$ over any range.
2. Using the subplot command, obtain the graphs of $\sin(t)$, $\cos(t)$ and the product of these two functions at intervals of 30 radians in the range of $0 \leq t \leq 2\pi$.
3. Write the MATLAB m-file that produces the graph below.

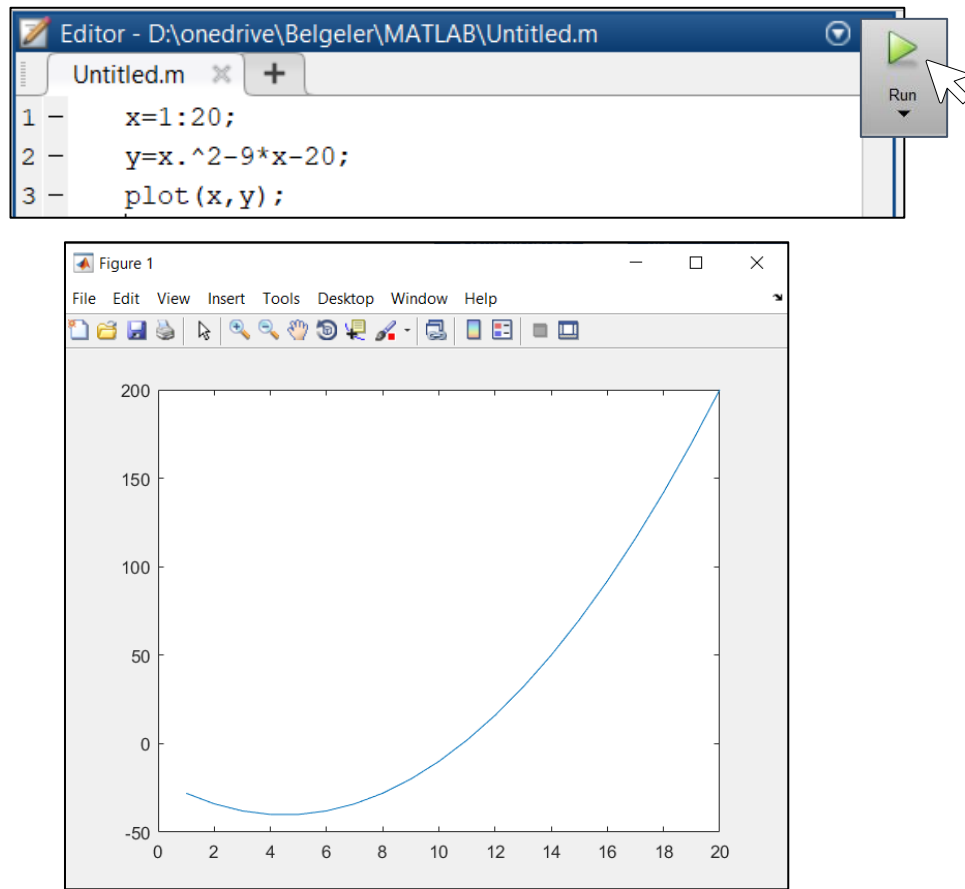


4. Write the MATLAB m-file that plots the functions $y = x^3$ and $y = x^5$ in the interval $[-2, 2]$ on the same graph.
5. Plot the graphs of the function $y(t) = 3t^2 - 5t + 8$ and the derivative of this function $y'(t) = 6t - 5$ with respect to t on the same graph.

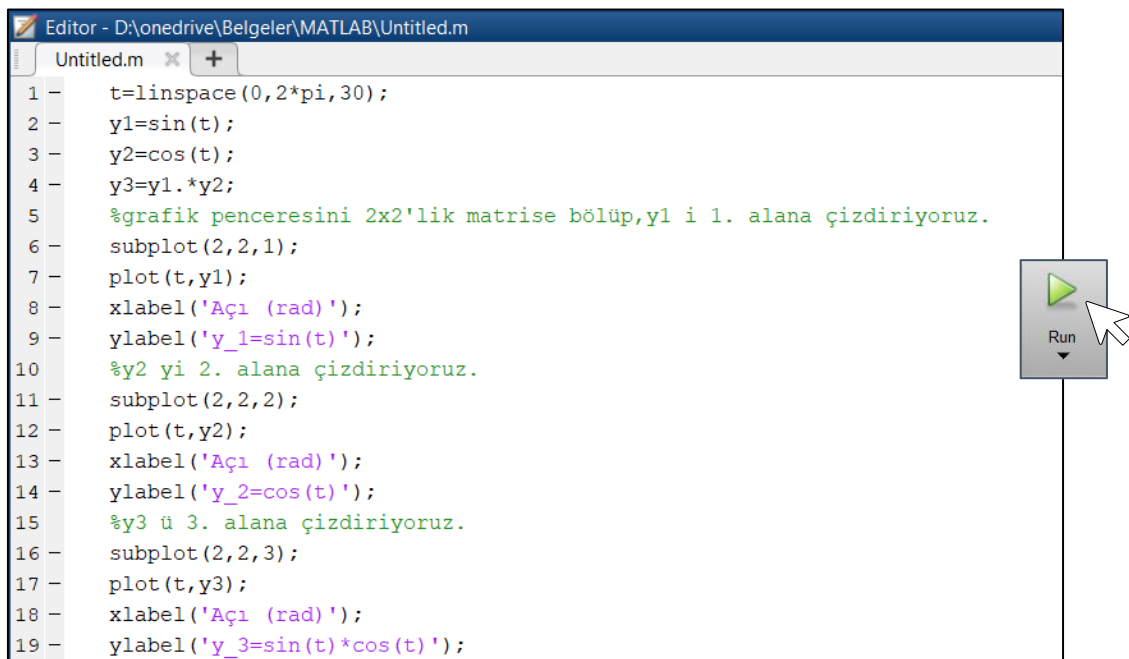
ME 444 MATLAB FOR ENGINEERS

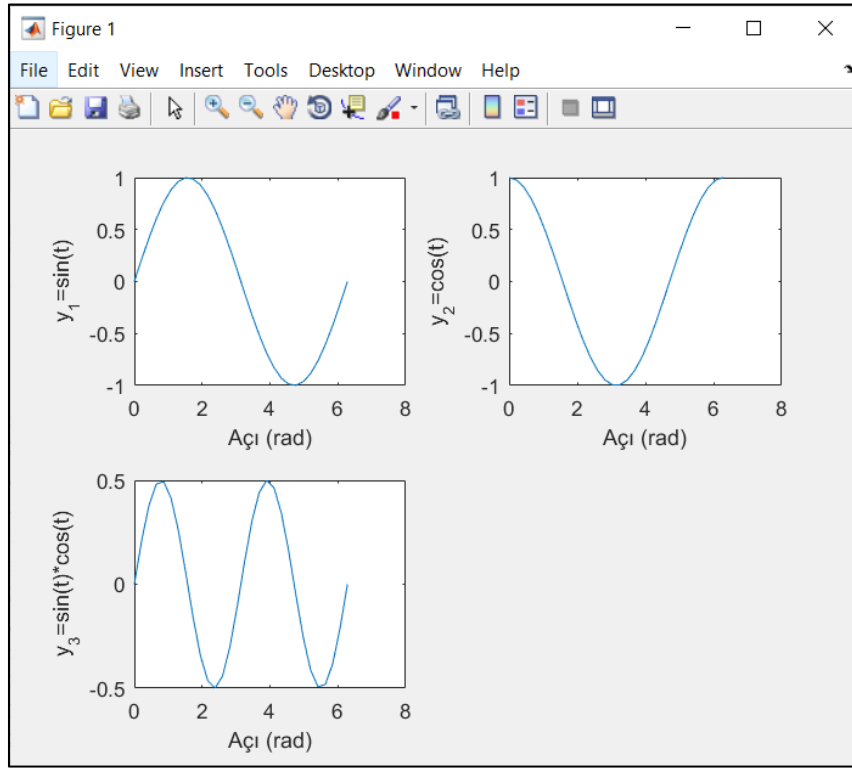
Practice 09- Graphic Operations in MATLAB

1.



2.

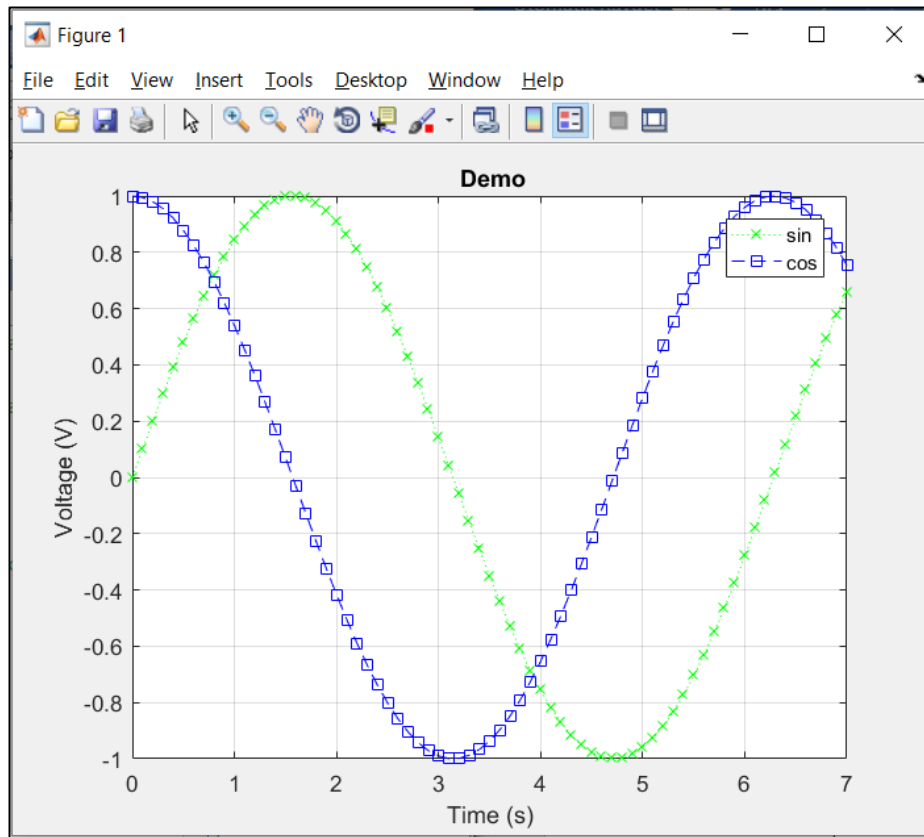




3.

```
Editor - D:\onedrive\Belgeler\MATLAB\Untitled2.m
Untitled2.m x +
1 %x-eksenini değerlerini oluşturalım
2 t=0:0.1:7;
3 %y-eksenini değerlerini oluşturalım
4 y1=sin(t);
5 y2=cos(t);
6 %Eğrileri çizdirelim
7 plot(t,y1,'gx');
8 hold on %aynı grafiğe 2.eğriyi çizdiriyoruz
9 plot(t,y2,'--bs');
10 hold off
11 %grafik ve eksen etiketleri
12 title('\bf Demo');
13 xlabel('Time (s)');
14 ylabel('Voltage (V)');
15 %Açıklama Tablosu
16 legend('sin','cos');
17 %Yatay-Dikey çizgileri ekleyelim
18 grid on;
```



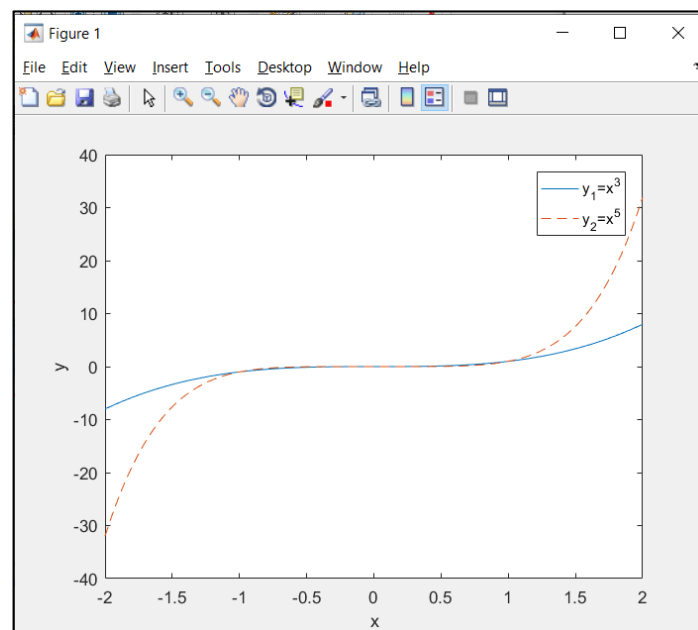


4.

```

Editor - D:\onedrive\Belgeler\MATLAB\Untitled3.m
Untitled2.m x  Untitled3.m x  +
1 - x=linspace(-2,2,100);
2 - y1=x.^3;
3 - y2=x.^5;
4 - %Grafikleri çizelim
5 - plot(x,y1,'-',x,y2,'--');
6 - legend('y_1=x^3','y_2=x^5');
7 - xlabel('x');
8 - ylabel('y');
  
```

Run



5.

```
Editor - D:\onedrive\Belgeler\MATLAB\Untitled4.m
Untitled4.m x +
1 - t=0:20;
2 - y=3*t.^2-5*t+8;
3 - yt=6*t-5;
4 - plot(t,y,t,yt)
5 - xlabel('t');
6 - ylabel('Fonksiyon');
7 - legend('y(t)', 'y'(t)');
```

