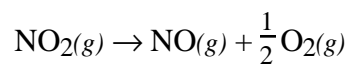


PS5.9. In the reaction



the  $[\text{NO}_2]$  was followed with time and the data shown below was obtained.

Time(s)	$[\text{NO}_2](\text{M})$
0	0.0831
4.2	0.0666
7.9	0.0567
11.4	0.0497
15	0.0441

Determine the order of the reaction and its half-life. (Include graphs of your data to support your conclusion. Be sure all plots are included.)