

Q1 (10 MARKS)

Figure 1 shows the two degree of freedom spring-mass system. If $m_1=m$, $m_2=2.5m$, $k_1=k$, $k_2=2.5k$ and $k_3=3k$, determine the natural frequencies of the system.

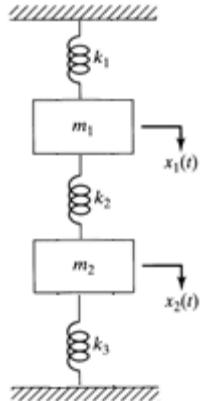


Figure 1