1. The resultant of the two forces $P$ and $Q$ is $R$. If $Q$ is doubled, the new resultant is perpendicular to $P$. Then
A. $\mathbf{Q}=\mathrm{R}$
B. none of these
C. $P=Q$
D. $Q=2 R$
2. The shape of the bending moment diagram over the length of a beam, carrying a uniformly distributed load is always:
A. linear
B. parabolic
C. cubical
D. circular
3.The magnitude of the resultant force of $\mathbf{F}_{1}$ and $\mathbf{F}_{2}$ is:

A. 6.77 N
B. 6.06 N
C. 4.96 N
d. 4.6 N
