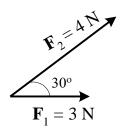
1. The resultant of the two forces P and Q is R. If Q is doubled, the new resultant is perpendicular to P. Then

**A. Q** = **R** B. none of these C. P = Q D. Q = 2R

- 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