1. If spring index=2.5, what can be concluded about stresses in the wire?  
   a) **They are high**  
   b) they are negligible  
   c) They are moderate  
   d) Cannot be determined
2. Find the shear stress in the spring wire used to design a helical compression spring if a load of 1200N is applied on the spring. Spring index is 6, and wire diameter 7mm.

a) 452.2N/mm²  
b) **468.6N/mm²**  
c) 512.2N/mm²  
d) None of the listed

1. Find the mean coil diameter of a helical compression spring if a load of 1200N is applied on the spring. Spring index is 6, and wire diameter 7mm.  
   a) 7/6mm  
   b) **42mm**  
   c) 1200×6/7 mm  
   d) None of the listed
2. Find the extension produced by a helical spring of spring constant 30N/m, when a mass of 500g is attached to its end?
3. 0.016 m
4. 1.6 m
5. **0.16 m**
6. None of these
7. Determine number of coils in a helical compression spring, if modulus of rigidity is 80 Gpa and spring stiffness is 50 N/ mm. Assume wire diameter and spring index as 8 mm and 5 respectively
8. 11.8 turns
9. **12.8 turns**
10. 13.3 turns
11. None of the above