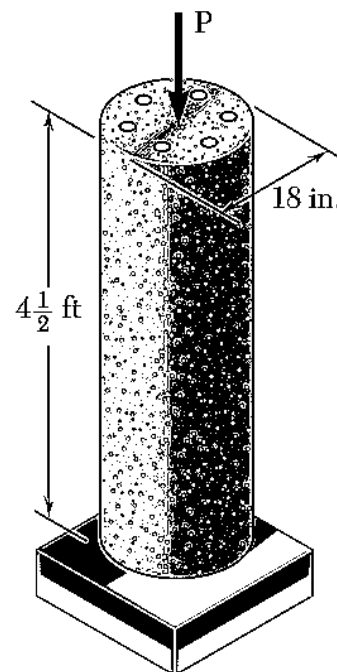


- 1) GIVEN: The concrete column is reinforced with six  $\varnothing 1\text{-}1/8\text{in.}$  steel rods.  
 $E_s = 29 \times 10^6$  psi and  $E_c = 4.2 \times 10^6$  psi.  
REQ'D: Normal stresses in the steel and concrete if  $P = 350$  kips. (B9.27)



- 2) GIVEN: Three steel rods ( $E = 29 \times 10^6$  psi) support an 8.5-kip load  $P$ . Each of the rods AB and CD has a  $0.32\text{-in}^2$  cross-sectional area and rod EF has a  $1\text{-in}^2$  cross-sectional area. (B9.29)

**Neglect any deformation of rod BED.**

- REQ'D: (a) Find the change in length of rod EF  
(b) Find the stress in each rod.

