

Classroom Problem 5-11-1: Consider a floor framing system with 30 ft-long floor beams spaced at 10 ft. with slab and deck weight of 50 *psf*, partition loads of 20 *psf*, miscellaneous dead load of 10 *psf*, and a live load of 80 *psf*. Select a **W** section of **A992** steel ($F_y = 50$ *ksi*; $F = 65$ *ksi*). Assume the beam is continuously braced. The maximum service load deflection is limited to $L/360$.