

Classroom Problem 5.8-1: Check the shear capacity of a simply supported beam with a span of 25 ft. that uses a **W16 x 40** ($F_y = 50$ ksi). Assume the beam has continuous lateral support and is subjected to the following service loads: dead load is 0.75 k/ft (including the weight of the beam), and live load is 1 k/ft.

Classroom Problem 5.8-2: A **W12 x 45** of **A992** steel with $F_y = 50 \text{ ksi}$; $F_u = 65 \text{ ksi}$, and has continuous lateral support. The two concentrated loads are service live loads. Neglect the beam's weight and determine whether the beam is adequate.

