

9. We know that weight is given by

$$W = m g$$

$$W = (60 \text{ kg}) (9.8 \text{ m /s}^2)$$

$$W = 588 \text{ N}$$

From the list of Conversion Factors on the inside cover of the text we obtain the conversion that tells us that 1 lb = 4.448 N, so we can convert 588 N to pounds by multiplying the right hand side of the equation by unity expressed in the form

$$1 = 1 \text{ lb} / 4.448 \text{ N}$$

$$W = (588 \text{ N}) (1 \text{ lb} / 4.448 \text{ N})$$

$$W = 132.2 \text{ lb}$$