Numerical answers

4. (a)
$$\overline{\rho} = \frac{2t}{l}$$

(b)
$$E_1 = 0.5 \bar{\rho} E_s$$

$$\sigma_{11}^{Y} = 0.5\overline{\rho}Y$$

(c)
$$\sigma_{11}^{Y} = 0.5\overline{\rho}Y$$
$$\sigma_{12}^{Y} = \frac{1}{16}\overline{\rho}^{2}Y$$