ERRATA for

FE Mechanical Practice Exam

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Revisions are shown in red.

Solution 12, p. 70:

The solution should read as follows:

12. Refer to the Intellectual Property section in the Ethics chapter of the FE Reference Handbook.

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THE CORRECT ANSWER IS: D

Solution 95, p. 114:

The solution should read as follows:

95. Refer to the Hooke's Law section in the Mechanics of Materials chapter of the *FE Reference Handbook*.

The formula for the total longitudinal strain without a temperature rise is:

$$\varepsilon_{\text{axial}} = \frac{1}{E} \left(\sigma_l - v \left(\sigma_t + \sigma_r \right) \right) = \frac{1}{210 \times 10^3 \text{ MPa}} \left(23.1 \text{ MPa} - 0.24 \left(46.2 \text{ MPa} + 0 \right) \right) = 5.72 \times 10^{-5}$$

This must be converted to displacement using the following formula:

$$\varepsilon_{\rm axial} = \frac{\delta l}{l}$$
, where l is the length of the section under consideration $\delta l = \varepsilon_{\rm axial} \times l$

$$= 5.72 \times 10^{-5} \times 1,000 \text{ mm}$$

$$= 0.0572 \text{ mm}$$

THE CORRECT ANSWER IS: A