

Remarks: See § 8.3, pages 587 till 598

See table 8.4 page 590

Answers:

From (a)

$$q = \frac{160 \cdot 80 \cdot l g}{l 10^6} = 0.0128 g \frac{N}{m}$$

$$w_{mid:(a)} = \frac{5}{384} 0.0128 g \frac{l^4}{EI_{(a)}} = 12 mm$$

$$\frac{g l^4}{E} = 0.49152$$

For section (b):

$$w_{mid:(b)} = \frac{5}{384} (0.0128) g \frac{l^4}{EI_{(b)}} = 3 mm$$

$$w_{mid:(b)} = 3 mm$$