Remarks: See §7.2, example 2, page 250 till 252

Answers:

a. $n = 2887{,}5\,\mathrm{N/m}$

b. vertical support reactions: $n_v = 2500{,}6\,\mathrm{N/m}$

c. The horizontal load on the ring belt is an equally distributed load pointing to the outside of the structure and equal to the horizontal component of the membrane force.

$n_h = 1443{,}7\,\mathrm{N/m}$

This creates a tensile force in the ring beam:

$N_{ringbeam} = 20{,}63\ \mathrm{kN}$