Remarks: See §4.6, pages 168 till 170
See §4.74, pages 179 till 182

Answers 4.52-1:

a. $W_{z;b} = 4,08 \times 10^3$ mm^3

b. $W_{z;t} = 6,80 \times 10^3$ mm^3

c. $\sigma_{max} = 100$ N/mm^2

d. $\sigma_t = -60$ N/mm^2

$\sigma_b = +100$ N/mm^2

Explanation 4.52-1:

$I_{zz} = 102 \times 10^3$ mm^4

Answers 4.52-2:

a. $W_{z;b} = 26,30 \times 10^3$ mm^3

b. $W_{z;t} = 15,23 \times 10^3$ mm^3

c. $\sigma_{max} = 26,8$ N/mm^2

d. $\sigma_t = -26,8$ N/mm^2

$\sigma_b = +15,5$ N/mm^2

Explanation 4.52-2:

$I_{zz} = 578,66 \times 10^3$ mm^4