

Opmerkingen: Zie §3.3, blz. 111 t/m 121

Antwoorden 3.30-1:

- a. $I_{yy} = 4 \times 10^6 \text{ mm}^4$
- b. $I_{zz} = 20 \times 10^6 \text{ mm}^4$
- c. $I_{yz} = 6 \times 10^6 \text{ mm}^4$

Toelichting 3.30-1:

Maten in mm:

- a. $I_{yy} = \left\{ \frac{1}{12} \times 6 \times 200^3 \right\} = 4 \times 10^6 \text{ mm}^4$
- b. $I_{zz} = \left\{ \frac{1}{12} \times 12 \times 200^3 \right\} + 2 \times \left\{ 6 \times 100 \times 100^2 \right\} = 20 \times 10^6 \text{ mm}^4$
- c. $I_{yz} = 2 \times \left\{ 6 \times 100 \times 50 \times 100 \right\} = 6 \times 10^6 \text{ mm}^4$

Opmerkingen: Zie ook blz. 99 en 119

Antwoorden 3.30-2:

- a. $I_{yy} = 75,4 \times 10^6 \text{ mm}^4$
- b. $I_{zz} = 18,9 \times 10^6 \text{ mm}^4$
- c. $I_{yz} = 0$

Toelichting 3.30-1:

Maten in mm:

- a. $I_{yy} = \left\{ \frac{1}{12} \times 10\sqrt{2} \times 400^3 \right\} = 75,4 \times 10^6 \text{ mm}^4$
- b. $I_{zz} = 2 \times \left\{ \frac{1}{12} \times 10\sqrt{2} \times 200^3 \right\} = 18,9 \times 10^6 \text{ mm}^4$
- c. $I_{yz} = 0$