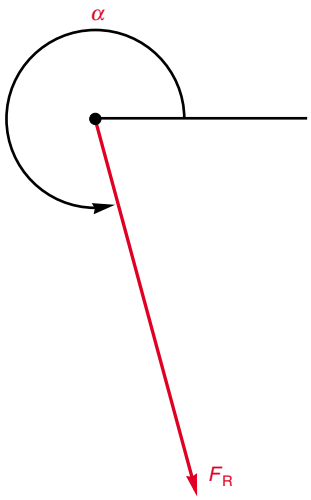
Module 1
Antwoorden van de toetsopgaven

Opgave 1

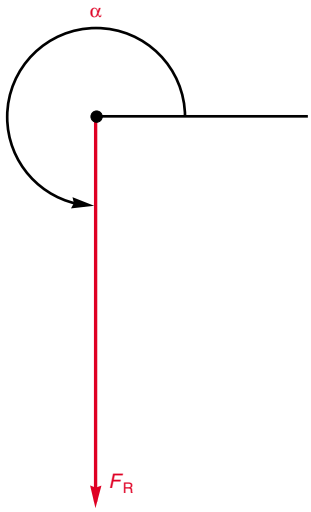
$F_R = 13$ kN
$\alpha = 270 + 22{,}6 = 292{,}6°$ (zie figuur 1.1)

Opgave 2

$F_R = 0$ kN



Figuur 1.1



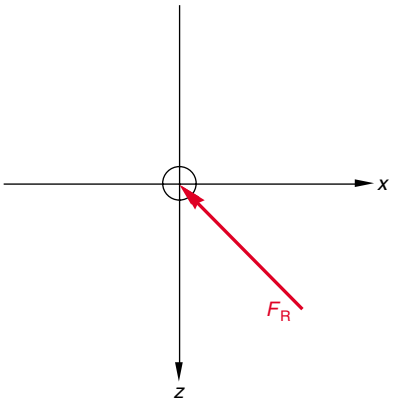
Figuur 1.2

Opgave 3

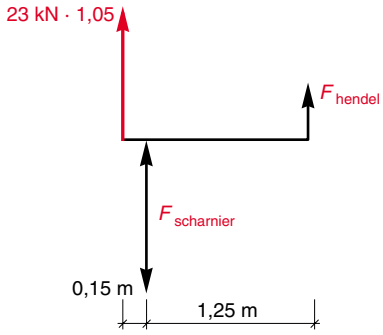
$F_R = 6$ kN
$\alpha = 270\ °$ (zie figuur 1.2)

Opgave 4

$\Sigma F_H = -4$ kN
$\Sigma F_V = -3$ kN
$F_R = 5$ kN
$\alpha = 36{,}7°$
$\Sigma T_{(o)} = 0$



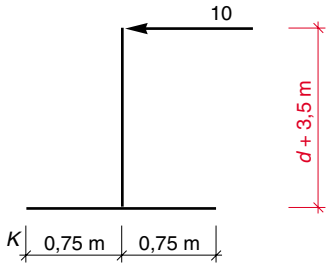
Figuur 1.3



Figuur 1.4

Opgave 5

F hendel $= 2{,}9$ kN
F scharnier $= 27{,}05$ kN



Figuur 1.5

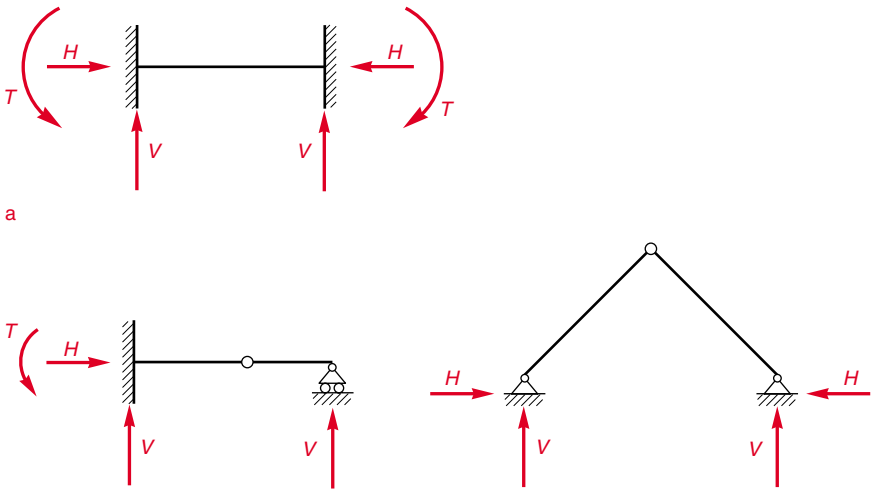
Opgave 6

$D \geq 1{,}074$ m

Opgave 7

$A_V = 35$ kN $\uparrow$ $\quad A_H = 12$ kN $\rightarrow$
$B_V = 25$ kN $\uparrow$ $\quad B_H = 12$ kN $\leftarrow$

Opgave 8



Figuur 1.6

a drievoudig statisch onbepaald
b statisch bepaald
c statisch bepaald
d statisch bepaald

Opgave 9

$A_T = 8$ kNm $\curvearrowleft$
$A_V = 2$ kN $\uparrow$
$A_H = 0$
$S_{V1} = 2$ kN
$S_{H1} = 0$
$B_V = 2$ kN $\uparrow$

Opgave 10

Antwoord: ja