Opgave 449

$$\vec{a} = \begin{pmatrix} 5 \\ t \end{pmatrix}$$
$$\vec{b} = \begin{pmatrix} 2 \\ -1 \end{pmatrix}$$

$0 = 5 \cdot 2 + t \cdot (-1)$
$0 - 5 \cdot 2 = t \cdot (-1)$
$\dfrac{0 - 5 \cdot 2}{-1} = t$
$t = 10$

$$\vec{a} = \begin{pmatrix} t \\ 3 \end{pmatrix}$$
$$\vec{b} = \begin{pmatrix} t \\ -12 \end{pmatrix}$$

$0 = t \cdot t + 3 \cdot (-12)$
$0 - 3 \cdot (-12) = t^2$
$t = \sqrt{0 - 3 \cdot (-12)}$
$t = \pm 6$

$$\vec{a} = \begin{pmatrix} t \\ 1 \end{pmatrix}$$
$$\vec{b} = \begin{pmatrix} 2 \\ 0 \end{pmatrix}$$

$0 = t \cdot 2 + 1 \cdot 0$
$0 - 1 \cdot 0 = t \cdot 2$
$\dfrac{0 - 1 \cdot 0}{2} = t$
$t = 0$