

19.17 $\vec{a} = 17\vec{i} - 14\vec{j}$ $\vec{u} = \vec{i} - 2\vec{j}$ $\vec{v} = -3\vec{i} + \vec{j}$
 $\vec{a} = x\vec{u} + y\vec{v}$

$\Rightarrow 17\vec{i} - 14\vec{j} = x(\vec{i} - 2\vec{j}) + y(-3\vec{i} + \vec{j})$

$\Rightarrow 17\vec{i} - 14\vec{j} = x\vec{i} - 2x\vec{j} - 3y\vec{i} + y\vec{j}$

$\Rightarrow \underline{17\vec{i} - 14\vec{j}} = \underline{(x - 3y)\vec{i}} + \underline{(-2x + y)\vec{j}}$

lause Seppo \Rightarrow

$\begin{cases} 17 = x - 3y \\ -14 = -2x + y \end{cases} \quad | \cdot 2$

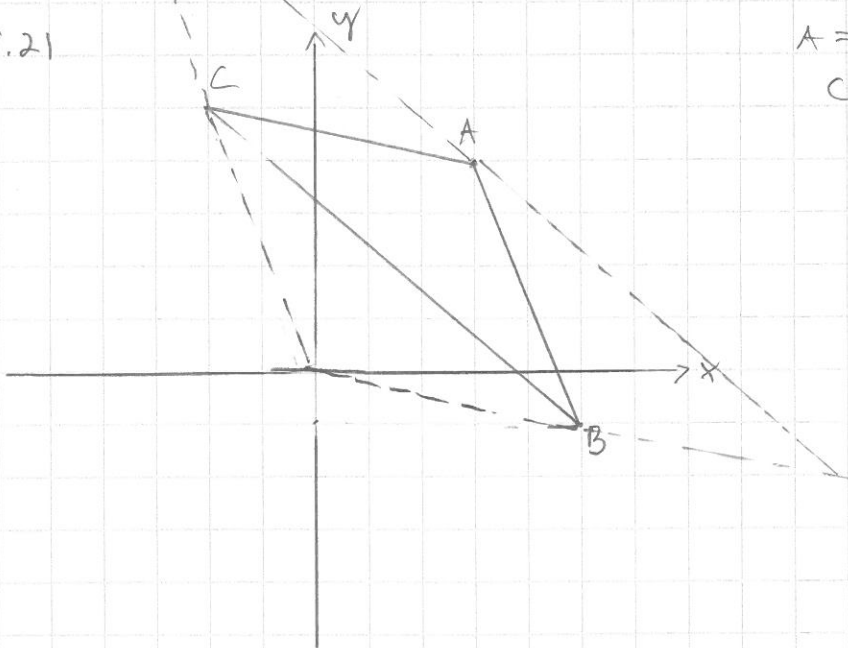
$\Rightarrow \begin{cases} 34 = 2x - 6y \\ -14 = -2x + y \end{cases} \quad | \text{inj}$

$20 = -5y \quad | : (-5) \Rightarrow y = -4$

$\Rightarrow 17 = x - 3 \cdot (-4) \quad \Rightarrow x = 5$

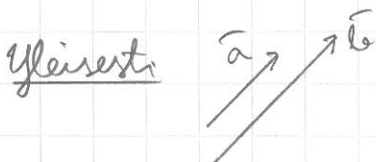
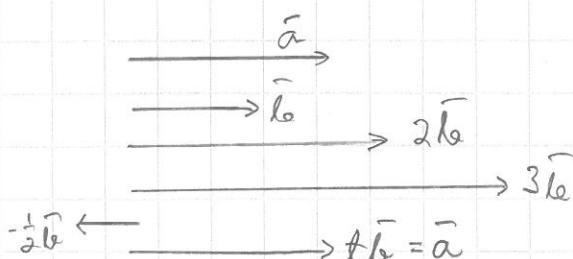
vast. $\vec{a} = 5\vec{u} - 4\vec{v}$

18.21



$A = (3, 4)$ $B = (5, -1)$
 $C = (-2, 5)$

20. Vektorien yhdensuuntaisuus



$\vec{a} \parallel \vec{b} \Leftrightarrow \vec{a} = t\vec{b}$ jollakin luvulla $t \in \mathbb{R}$
 $(t \neq 0)$

YHDENSUUNTAISUUSEHTO