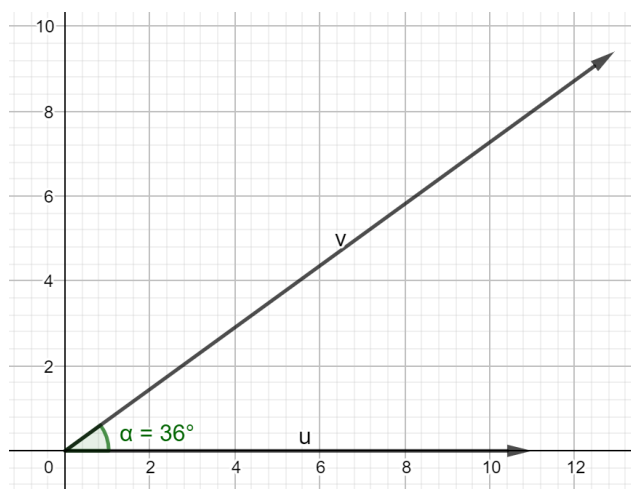


	Navn:		Skole:	
	Klasse: 20		Dato: 10. september 2021	Fag: Matematik A

Opgave 439

$$\begin{aligned}
 a &= \vec{u} = 11 \\
 b &= \vec{v} = 16 \\
 v &= 36 \\
 v_1 &= 180 - 36 = 144
 \end{aligned}$$

$$\begin{aligned}
 |\vec{u} + \vec{v}| &= \sqrt{a^2 + b^2 - 2 \cdot a \cdot b \cdot \cos(v_1)} \\
 |\vec{u} + \vec{v}| &= \sqrt{11^2 + 16^2 - 2 \cdot 11 \cdot 16 \cdot \cos(144)} \\
 |\vec{u} + \vec{v}| &= \sqrt{121 + 256 + 284.77} \\
 |\vec{u} + \vec{v}| &= \sqrt{661.77} \\
 |\vec{u} + \vec{v}| &= 25.7
 \end{aligned}$$



$$\begin{aligned}
 |\vec{u} - \vec{v}| &= \sqrt{a^2 + b^2 - 2 \cdot a \cdot b \cdot \cos(v)} \\
 |\vec{u} - \vec{v}| &= \sqrt{11^2 + 16^2 - 2 \cdot 11 \cdot 16 \cdot \cos(36)} \\
 |\vec{u} - \vec{v}| &= \sqrt{121 + 256 - 284.77} \\
 |\vec{u} - \vec{v}| &= \sqrt{92.23} \\
 |\vec{u} - \vec{v}| &= 9.60
 \end{aligned}$$