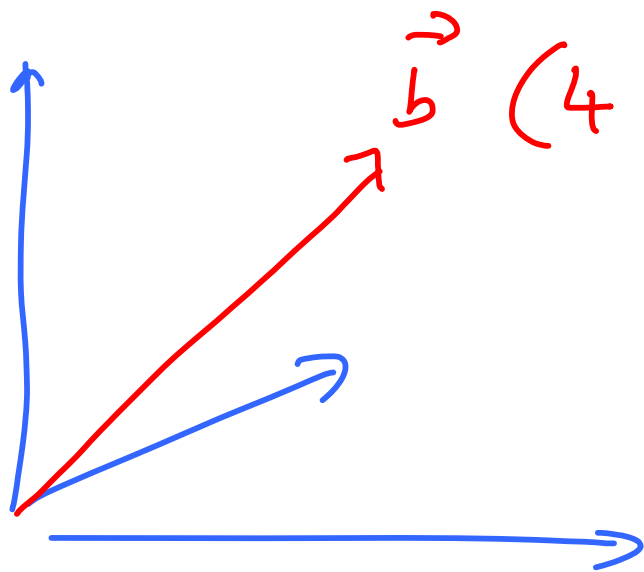
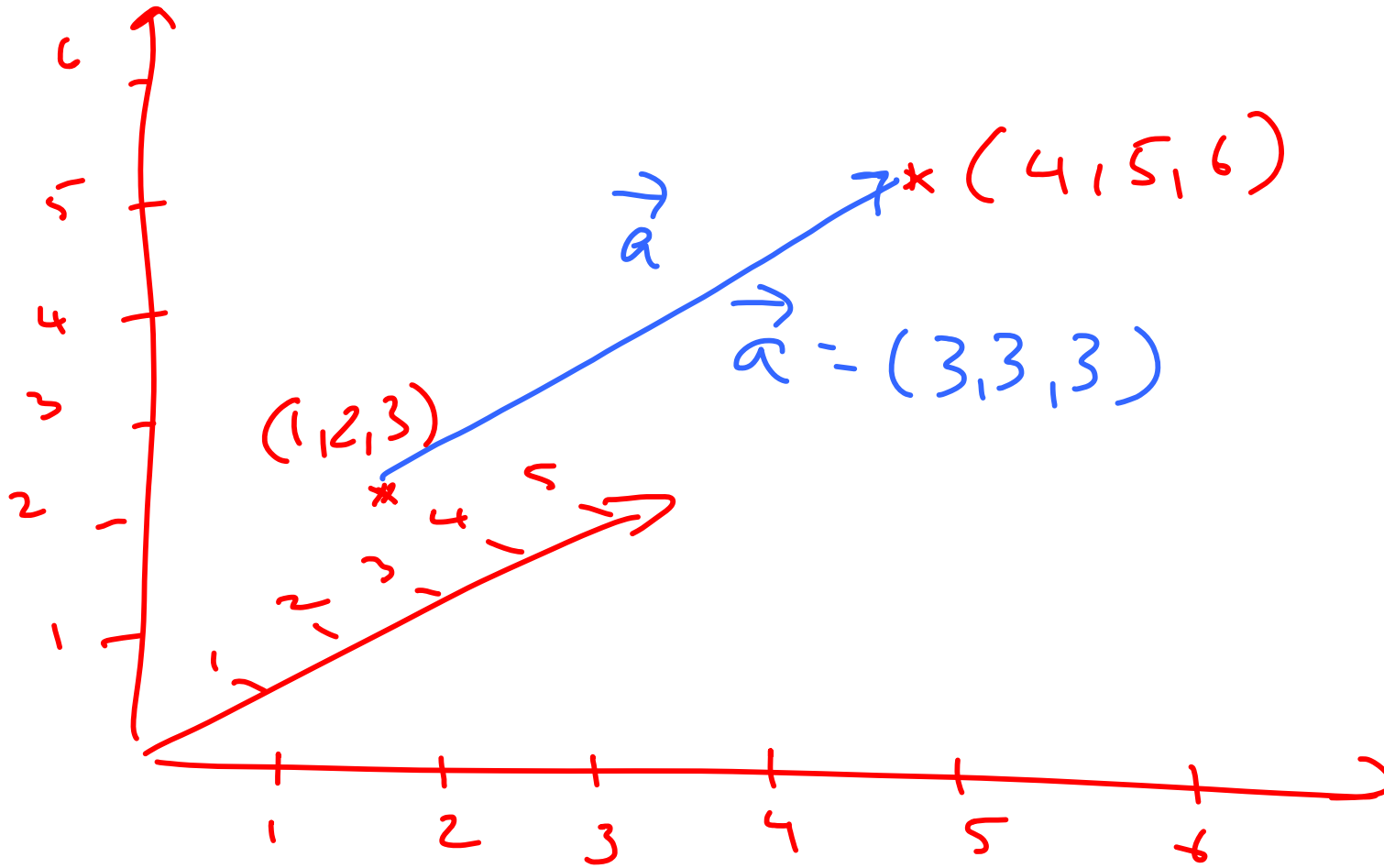


$$y^2 = 3^2 + 7^2$$

$$y^2 = a^2 + b^2$$



$$(|\vec{b}|)^2 = 4^2 + 3^2 + 2^2$$



$$\vec{p} = \vec{a} + \vec{b} + \vec{c}$$

$$\vec{a} = (7, 2)$$

$$\vec{b} = (-3, 2)$$

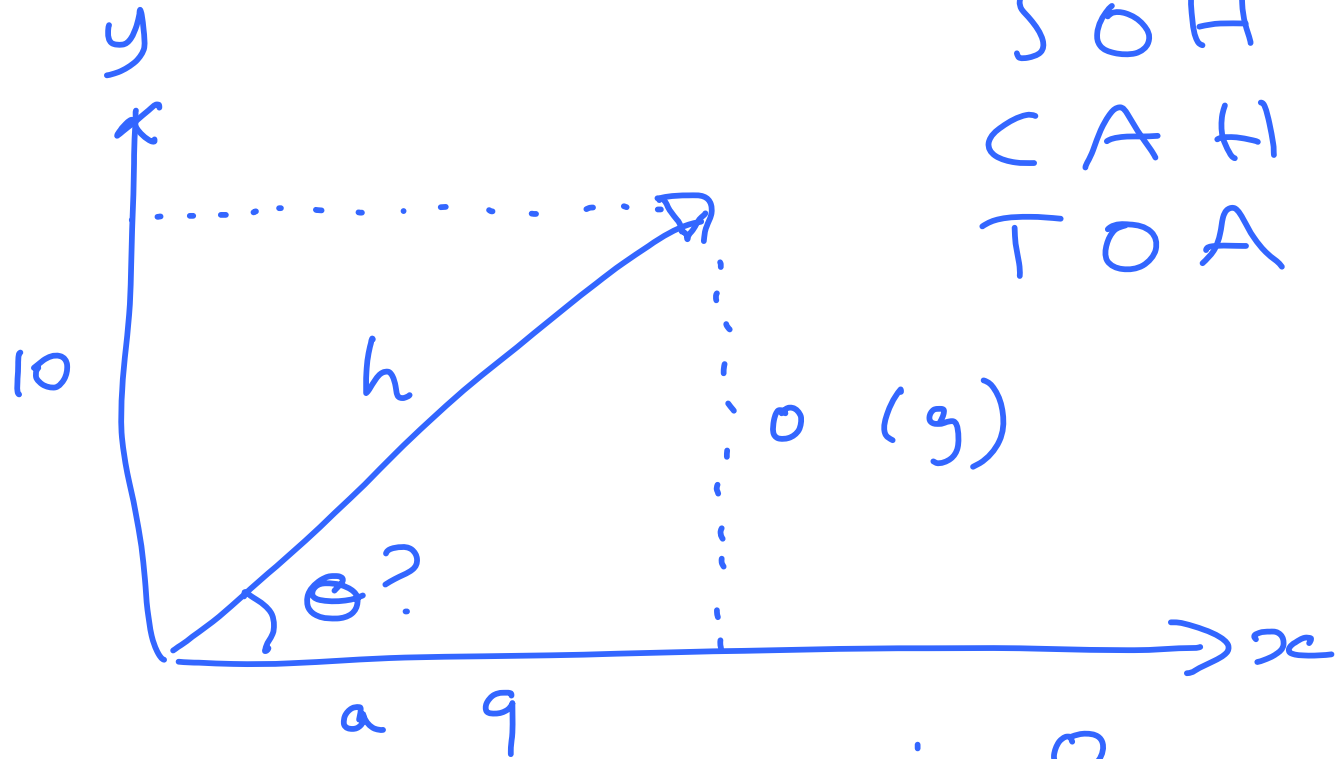
$$\vec{c} = (5, 10)$$

$$\vec{p} = (7-3+5, 2-2+10)$$

$$\vec{p} = (9, 10)$$

$$\tan \Theta = \frac{10}{9}$$

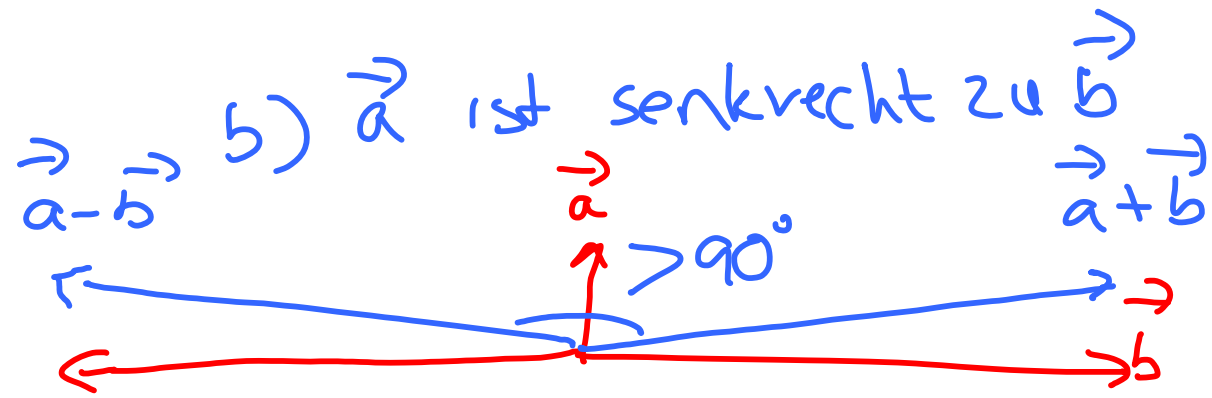
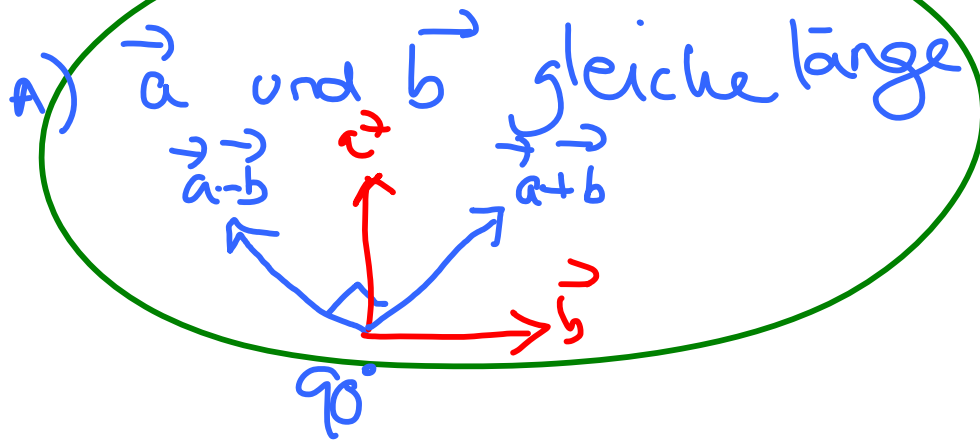
$$\arctan \Theta = 48^\circ$$



SOH
CAH
TOA

Sin $\frac{O}{H}$
Cos $\frac{A}{H}$
Tan $\frac{O}{A}$

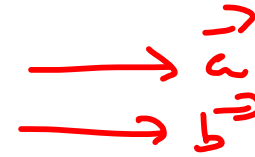
Wann stehen $\vec{a} + \vec{b}$ und $\vec{a} - \vec{b}$ senkrecht
aufeinander?



C) \vec{b} antiparallel zu \vec{a}



D) \vec{b} parallel zu \vec{a}



~~e) $|\vec{a} + \vec{b}| = a + b$~~

$$\vec{c} = \vec{a} - \vec{b}$$

$$\vec{a} = (4, 2, -3)$$

$$\vec{b} = (5, -1, 6)$$

$$\vec{c} = (4 - 5, 2 + 1, -3 - 6)$$

$$\vec{c} = (-1, 3, -9)$$

$$|\vec{c}|^2 = (-1)^2 + 3^2 + (-9)^2$$

$$= 1 + 9 + 81$$

$$= 91$$

$$\sqrt{91} = 9.5 = |\vec{c}|$$

$$\vec{F} = (F_x, F_y)$$

$$F_x = 14 \text{ N}$$

$$F_y = 5 \text{ N}$$

$$\vec{F} = \vec{F}_1 + \vec{F}_2 + \vec{F}_3$$

$$\vec{F} = \vec{F}_1 - \vec{F}_2$$

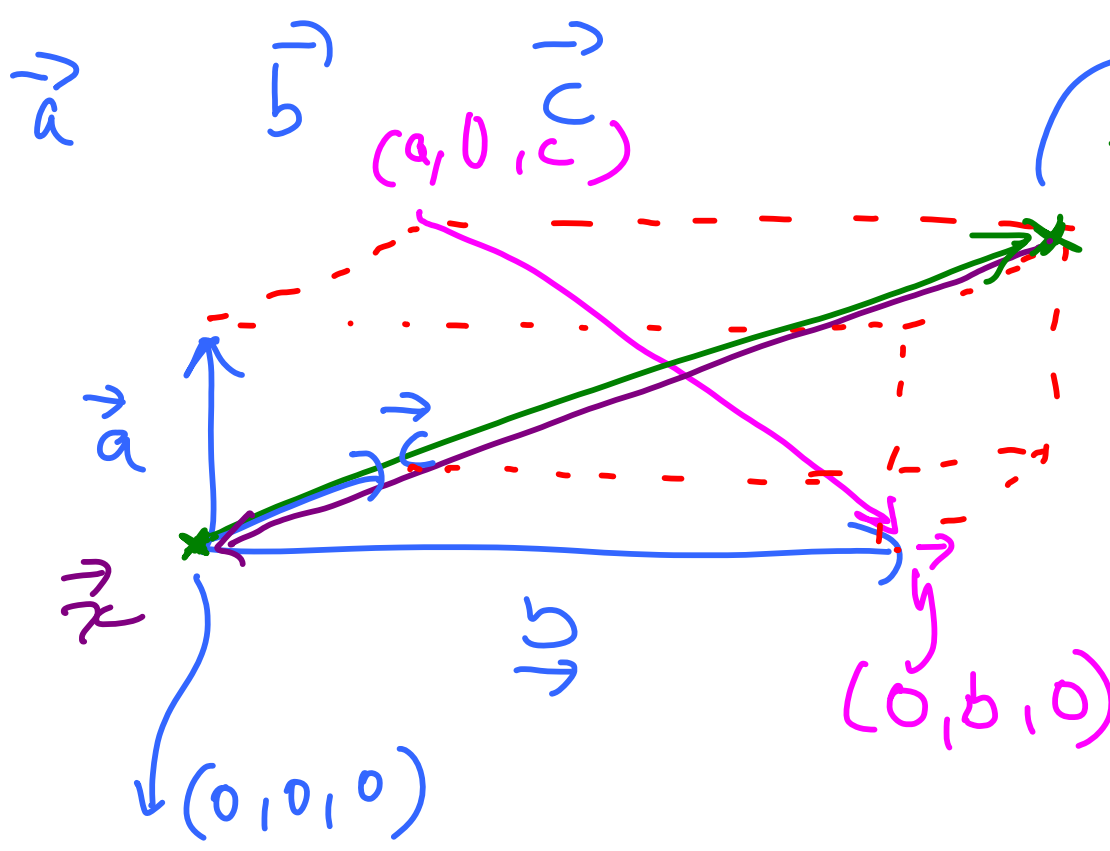
$$\vec{F} = (9, 5)$$

$$\vec{F}_2 = (-3, 6)$$

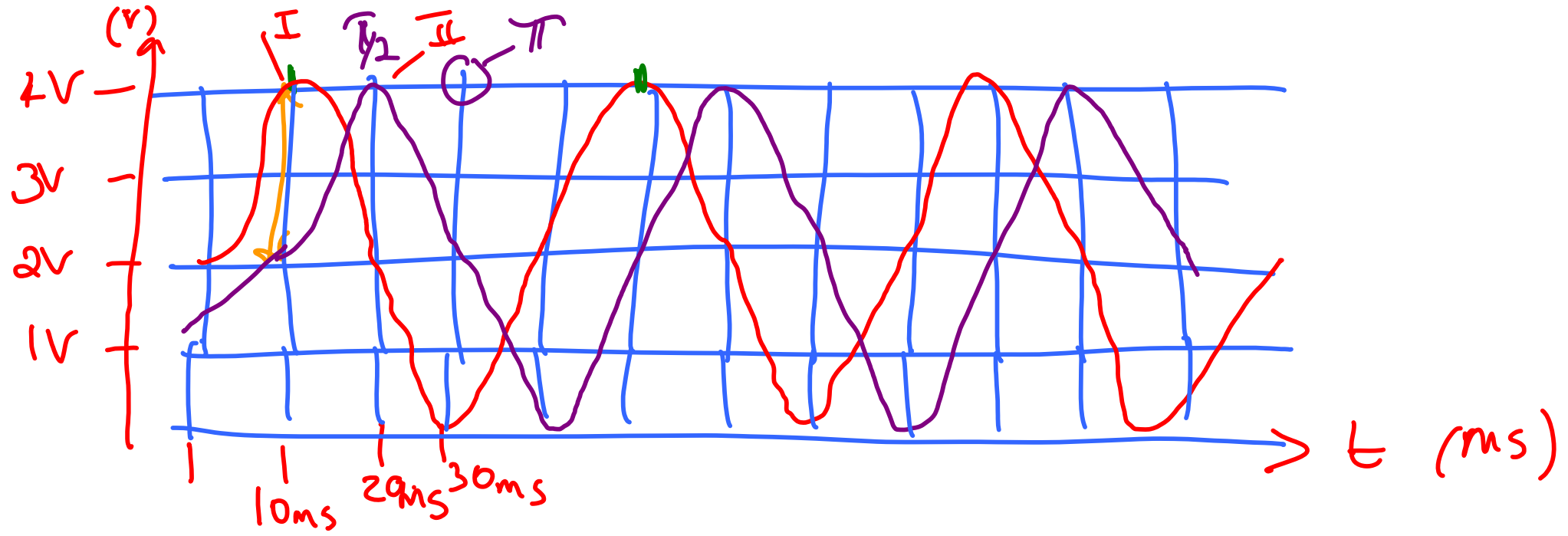
$$\vec{F} = (14, 5) - (9, 5) - (-3, 6)$$

$$= (14 - 9 + 3, 5 - 5 - 6)$$

$$= (8, -6)$$



$$\begin{aligned}
 \vec{r} &= \vec{a} + \vec{b} + \vec{c} \\
 \vec{s} &= \vec{a} + \vec{b} \\
 \vec{t} &= \vec{b} + \vec{c} \\
 \vec{u} &= \vec{a} + \vec{b}
 \end{aligned}$$



~~A~~

$1 \text{ Hz} = \text{s}^{-1}$

✓ B $40 \text{ ms} \quad \frac{1000 \text{ ms}}{40 \text{ ms}} = 25 \text{ Hz}$

✓ C

