

Tugas I

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Kelas : B

$$a = [1, 2, 0] \quad b = [3, -2, 1]$$

Hitung sudut antara dua vektor tersebut

$$|a| = \sqrt{1^2 + 2^2 + 0^2}$$

$$|a| = \sqrt{1 + 4}$$

$$|a| = \sqrt{5}$$

$$|b| = \sqrt{3^2 + (-2)^2 + 1^2}$$

$$|b| = \sqrt{9 + 4 + 1}$$

$$|b| = \sqrt{14}$$

• menghitung $a \cdot b$

$$a = [1, 2, 0] \quad b = [3, -2, 1]$$

$$a \cdot b = [1 \cdot 3 + 2 \cdot (-2) + 0 \cdot 1]$$

$$a \cdot b = [3 + (-4)]$$

$$a \cdot b = -1$$

• menghitung sudut

$$a \cdot b = |a| |b| \cos \theta$$

$$-1 = \sqrt{5} \cdot \sqrt{14} \cos \theta$$

$$-1 = 2,24 \cos \theta$$

$$\cos \theta = \frac{-1}{2,24}$$

$$\cos \theta = -0,45$$

• mencari sudut θ dgn cara invers $\cos \theta$

$$\theta = \cos^{-1}(-0,45) \rightarrow -0,45 \text{ saya bulatkan}$$

$$\theta = \cos^{-1}(-1/2) \quad \text{menjadi } -0,5$$

$$\theta = 120^\circ \vee 240^\circ$$