

1. בעזרת חוקים

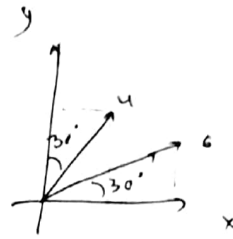
$$x: 6 \cos 30 + 4 \sin 30 = 7.19$$

$$y: 6 \sin 30 + 4 \cos 30 = 6.46$$

$$r = \sqrt{x^2 + y^2} = \sqrt{7.19^2 + 6.46^2} = 9.66$$

$$\tan \alpha = \frac{6.46}{7.19} \Rightarrow \alpha = 41.94^\circ$$

הכיוון של הווקטור

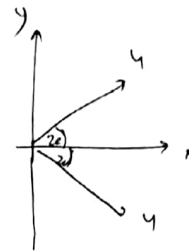


3

$$x: 4 \cos 20 + 4 \cos 20 = 7.51$$

$$y: 4 \sin 20 - 4 \sin 20 = 0$$

$$\begin{matrix} 7.51 & : & r \\ 0 & & -15 \end{matrix}$$



2

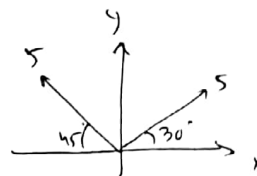
$$x: 5 \cos 30 + 5 \cos 45 = 6.79$$

$$y: 5 \sin 30 + 5 \sin 45 = 6.03$$

$$r = \sqrt{x^2 + y^2} = \sqrt{6.79^2 + 6.03^2} = 9.08$$

$$\tan \alpha = \frac{6.03}{6.79} \Rightarrow \alpha = 42.54^\circ$$

הכיוון של הווקטור

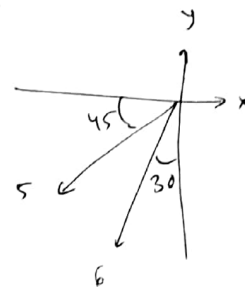
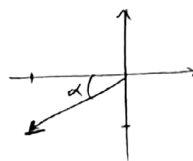


3

$$x: -5 \cos 45 - 6 \sin 30 = -6.53$$

$$y: -5 \sin 45 - 6 \cos 30 = -1.66$$

$$\tan \alpha = \frac{1.66}{6.53} \Rightarrow \alpha = 14.26^\circ$$



7

4

A = 40 cm, B = 2m, C = 50 mm, D = 0.002 km, E = 2000 μ .5

A + B = 0.4 m + 2m = 2.4m .1c

~~A + B + C + D + E = 2.4m + 50mm + 2000μ~~ .P

B + D = 2m + 0.002km = 2m + 2m = 4m

C - E = 50 mm - 2000 μm = 50 mm - 2 mm = 48 mm .c

$\frac{D \cdot E}{B} + A = \frac{0.002 \text{ km} \cdot 2000 \mu\text{m}}{2\text{m}} + 40 \text{ cm} = 2 \text{ mm} + 40 \text{ cm} = 40.2 \text{ cm}$.3

הקניאן : MKS : c, d, e, f, g

הקניאן : CGS : a, b, h, i

הקניאן : CGS : j

A = 2m², B = 4s, C = 5m, D = 2kg, E = 30 cm .7

א) A + E = 2m² + 30 cm .1c

ב) B + C = 4s + 5m .P

$\frac{A}{E} \cdot D + D \cdot C = \frac{2\text{m}^2}{30 \text{ cm}} \cdot 2\text{kg} + 2\text{kg} \cdot 5\text{m} =$.d

$= \frac{2 \cdot 2}{0.3} \text{ m} \cdot \text{kg} + 10 \text{ m} \cdot \text{kg} = 23.33 \text{ m} \cdot \text{kg}$.h

שאלה 8:

(1) 0.2_{km} = 0.2 · 1000_m = 200_m

(2) 30,000_g = 30000 · $\frac{1}{1000}$ _{kg} = 30_{kg}

(3) 108_{km/h} = 108 · $\frac{1000}{60 \cdot 60}$ _{m/s} = 30_{m/s}