

مراجعة الوحدة 36

$$0.848 = 55.0 \times 0.004 = 0.220 \times 0.004 = x \times 0.004$$

1- ج. سائر عطلات = 08,200,000 * 2.5 = 205,000,000

36N - 5 - 5

$$0.848 \times 1000 - 1000 = 5000 - 5000 = x \times 7 \times AB \sin 90^\circ \times 1 - P \times 9 \times 1$$

٤- ب۔ مساویان میں $\frac{1}{2}$ کا تناسب نصف

$$10\text{ N, } y^+ \leftarrow 10\text{ N, } 90^\circ \text{ } y^+ \leftarrow x^+ \text{ } \theta = 90^\circ$$

$$W_{08/21}^T = -20 \cos 60^\circ \cdot P = -7$$

U 8.002P = 0080202P m = 0.4 kg القائمة - p

المدة الزمنية : $t = 6s$

$$F8.2 = 0.0 = 221.0 - 0.841 = -pA = 0.001$$

المعطى: $V = 30 \text{ m/s}$ سرعة

قوة الجاذبية F_g

سابع، الجانبي، أو y ، $g = 10 \text{ m/s}^2$

$$^{\circ} \text{El. IFI} = 988 - 081 = 907 - 081$$

د۔ لایحی کن عجب لان الحیات بل تجرہ بلذکورہ فحاشیہ طری السورج

لأول مرة 8.8 و 8.8.8.8

$$F_1 = 40\text{ N}, 37^\circ \quad [F_2 = 20\text{ N}, 90^\circ]$$

$$F_4 = 10\text{ N}, 180^\circ \quad F_3 = 20\text{ N}, 270^\circ$$

$$F_{1x} = 40 \times \cos 37 = 40 \times 0.8 = +32 \text{ N}$$

$$F_{iy} = 40 \times \sin 37 = 40 \times 0.6 = 24 \text{ N}$$

$$F_{4x} = 10 \times \cos 180 = -10 \text{ N}$$

$$F_{4y} = 10 \times \sin 180^\circ = 0$$

$$F_{2x} = 0 \quad F_{2y} = +20$$

$$F_{3x} = 0 \quad F_{3y} = -20$$

$$\Sigma F_x = F_{1x} + F_{2x} + F_{3x} + F_{4x}$$

$$= 32 + 0 + 0 - 10 = +22 \text{ N}$$

$$\Sigma F_y = F_{1y} + F_{2y} + F_{3y} + F_{4y}$$

$$= 24 + 20 - 20 + 0 = +24 \text{ N}$$

$$\Sigma F = \sqrt{(22)^2 + (24)^2} = \sqrt{1060} = 32.56 \text{ N}$$

$$\tan \theta = \frac{\Sigma F_y}{\Sigma F_x} = \frac{24}{22} = 1.091 \rightarrow \theta = 47.5^\circ$$

$$\Sigma F = 32.56 \text{ N}, 47.5^\circ$$

$$\vec{F} = 8 \text{ N}, 270^\circ$$

$$\vec{r} = 5 \text{ m}, 0^\circ$$

$$\textcircled{1} 3\vec{F} = 24 \text{ N}, 270^\circ$$

$$\textcircled{2} -0.5\vec{r} = 2.5 \text{ m}, 180^\circ$$

$$\textcircled{3} |\vec{r} \times \vec{F}| = |\vec{r}| |\vec{F}| \sin \theta = 5 \times 8 \times \sin 90^\circ$$

$$= 40 \times 1 = 40 \text{ N.m}$$

$$\textcircled{4} |\vec{r} \times \vec{r}| = |\vec{r}| |\vec{r}| \sin \theta = 5 \times 5 \times \sin 0$$

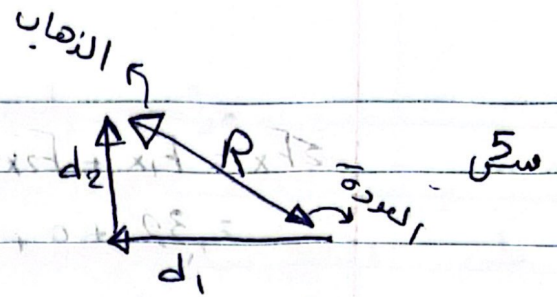
$$= 0$$

$$\textcircled{5} \vec{F} \cdot \vec{r} = |\vec{F}| |\vec{r}| \cos \theta = 8 \times 5 \times \cos 90^\circ$$

$$= 40 \times 0 = 0$$

$$d_1 = 400 \text{ m}, 180^\circ$$

$$d_2 = 200 \text{ m}, 90^\circ$$



$$R = \sqrt{(400)^2 + (200)^2} = \sqrt{200000} = 447.2 \text{ m}$$

$$\tan \theta = \frac{200}{400} = \frac{1}{2} \Rightarrow \theta = 26.6^\circ$$

$$180 - \theta = 153.4^\circ$$

$$180 - \theta = 153.4^\circ \Rightarrow 153.4 + 180 = 333.4$$

$$R = 447.2 \text{ m}, 333.4^\circ$$

$$V_1 = 10 \text{ m/s}, 0^\circ \rightarrow V_{1x} = +10, V_{1y} = 0$$

$$V_2 = 7 \text{ m/s}, 180^\circ \rightarrow V_{2x} = -7, V_{2y} = 0$$

$$\Delta V_x = V_{2x} - V_{1x} = -7 - 10 = -17 \text{ m/s}$$

$$\Delta V_y = 0$$

$$\Delta V = -17 \text{ m/s} = 17 \text{ m/s}, 180^\circ$$

$$|\vec{A} \times \vec{B}| = AB \sin \theta$$

$$|\vec{A}| |\vec{B}| \sin \theta = AB \Rightarrow \sin \theta = 1$$

$$\Rightarrow \theta = 90^\circ$$

$$|\vec{A} \cdot \vec{B}| = |\vec{A}| |\vec{B}| \cos \theta = AB$$

$$\cos \theta = 1$$

$$\theta = 0^\circ$$

متوازيين نفس الاتجاه

$$\begin{aligned}\vec{F}_1 &= F \text{ N}, 60^\circ & \vec{R} &= R, 90^\circ \\ \vec{F}_2 &= 60 \text{ N}, 90^\circ & \rightarrow R_x &= 0 \\ \vec{F}_3 &= 50 \text{ N}, 140^\circ & \rightarrow R_y &= R\end{aligned}$$

$$F_{1x} = F \times \cos 60 = \frac{1}{2} F \text{ N}$$

$$F_{1y} = F \times \sin 60 = 0.87 F \text{ N}$$

$$F_{2x} = 60 \times \cos 90 = 0 \text{ N}$$

$$F_{2y} = 60 \times \sin 90 = +60 \text{ N}$$

$$F_{3x} = 50 \times \cos 40 = -38.3 \text{ N}$$

$$F_{3y} = 50 \times \sin 40 = 32.14 \text{ N}$$

$$\textcircled{1} \quad \Sigma F_x = F_{1x} + F_{2x} + F_{3x} = 0$$

$$0.5 F + 0 - 38.3 = 0$$

$$F = \frac{38.3}{0.5} = 76.6 \text{ N}$$

$$\textcircled{2} \quad \Sigma F_y = F_{1y} + F_{2y} + F_{3y}$$

$$= 0.87 F + 60 + 32.14$$

$$= 0.87(76.6) + 60 + 32.14$$

$$= 158.782 \text{ N}$$

$$R = 158.782 \text{ N}, 90^\circ$$