

$$r v^{\circ} = (x) \text{ rad} \Rightarrow \frac{r v}{1 \text{ m}} = \frac{R \omega}{R} \Rightarrow \frac{q}{y_0} = \frac{v}{y_0} = \frac{R \omega}{R} \Rightarrow \frac{v R}{y_0} = R \omega$$

$$1 v^{\circ} = (x) \text{ rad} \Rightarrow \frac{1 v}{1 \text{ m}} = \frac{v \omega}{v y} = \frac{R \omega}{R} \Rightarrow R \omega = \frac{v \omega R}{v y} = R \omega$$

$$\frac{\omega R}{r} \text{ rad} = (x)^{\circ} \Rightarrow \frac{D}{1 \text{ m}} = \frac{\frac{\omega R}{r}}{\frac{1}{r}} = \frac{\omega R}{1} = \frac{D}{1 \text{ m}} \Rightarrow D = v \omega^{\circ}$$

$$\frac{F R}{q} \text{ rad} = (x)^{\circ} \Rightarrow \frac{D}{1 \text{ m}} = \frac{\frac{F R}{q}}{R} = \frac{D}{1 \text{ m}} = \frac{F}{q} \Rightarrow D = 1 \text{ m}$$

$$\frac{1 v \omega}{q} \leq \frac{D}{1 \text{ m}} = \frac{G}{y_0} \Rightarrow \frac{D}{1 \text{ m}} = \frac{1 v \omega}{\frac{q}{y_0}} \Rightarrow \frac{1 v \omega}{q} \times \frac{y_0}{1} = \frac{1 v \omega}{10}$$

$$\frac{1 v \omega}{10} + \frac{F \omega}{r} + 1 \omega = 1 \omega \Rightarrow \frac{D}{1 \text{ m}} = \frac{\omega R}{R} = \frac{\omega R}{R} = \frac{F \omega}{r}$$

$$\frac{1 v \omega}{10} + \frac{r v \omega}{10} + \frac{100 \omega}{10} = 1 \omega \Rightarrow \frac{F \omega}{r} = 1 \omega \Rightarrow r = F^{\circ}$$

$$\cos 40^{\circ} \cos 30^{\circ} - \sin 40^{\circ} \sin 30^{\circ} = \tan 60^{\circ} + r \cot 60^{\circ} = \frac{\sqrt{3}}{r} = \frac{\sqrt{3}}{r} - 1 + r = 1 \quad (3)$$

$$\frac{\tan 30^{\circ} + \tan 60^{\circ} + \tan 40^{\circ}}{\cot 30^{\circ} - \cot 40^{\circ}} = \frac{\frac{1}{\sqrt{3}} + 1 + r}{\sqrt{3} - \frac{\sqrt{3}}{r}} = \frac{\frac{1}{\sqrt{3}}}{\frac{1}{\sqrt{3}}} = \frac{1}{\sqrt{3}}$$

$$\tan 30^{\circ} = \left(\frac{\sqrt{3}}{r}\right)^{\circ} = \frac{r}{q} = \frac{1}{r} / \tan 60^{\circ} = (1/r) = 1 / \tan 30^{\circ} = (\sqrt{3})^{\circ} = r$$

$$\frac{\sqrt{3} - \sqrt{3}}{1 - \sqrt{3}} = \frac{r \sqrt{3} - \sqrt{3}}{r} = \frac{r \sqrt{3}}{r} / \frac{1}{r} + 1 + r = \frac{1 + r + 9}{r} = \frac{10}{r}$$

$$-\sin 30^{\circ} \cos 40^{\circ} + \cos 30^{\circ} \sin 40^{\circ} = \sin 10^{\circ}$$

$$\tan \theta = ?$$

$$-\frac{1}{r} \times \frac{1}{r} + \frac{\sqrt{3}}{r} \times \frac{\sqrt{3}}{r} = -\frac{1}{r} + \frac{r}{r} = \frac{r}{r} - \frac{1}{r} = \sin 10^{\circ} \Rightarrow \sin 10^{\circ} = \left(\frac{\sqrt{3}}{r}\right)^{\circ} = \frac{r}{r} = \frac{1}{r}$$

$$\theta = 10^{\circ} \Rightarrow \tan 10^{\circ} = 1$$

$$\frac{r \sqrt{3}}{r} = \left(\frac{\sqrt{3}}{r}\right)^{\circ} = \frac{r}{q} = \frac{1}{r} \Rightarrow \frac{1}{r} = \frac{r}{q}$$

$$\frac{r \tan 30^{\circ} (1 - \tan 30^{\circ})}{(1 - \cot 40^{\circ})^{\circ}} = \tan \theta \Rightarrow \frac{\frac{r \sqrt{3}}{r} \left(\frac{1}{r}\right)}{\frac{r}{q}} = \frac{r \sqrt{3}}{q} = \frac{r \sqrt{3}}{q} = \sqrt{3} = \tan \theta$$

$$\theta = 90^{\circ}$$

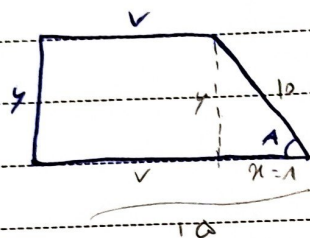
$$\left(\frac{\sqrt{3}}{r}\right)^{\circ} = \frac{r}{q} = \frac{1}{r} = \left(\frac{r}{q}\right)^{\circ} = \frac{r}{q}$$

$$\frac{r \sin \theta - \cos \theta}{\sin \theta - r \cos \theta}$$

$$\sin \theta = \frac{1}{r} \cos \theta \quad \tan \theta = \frac{1}{r} \quad (8)$$

$$\frac{\sin \theta}{\cos \theta} = \frac{1}{r}$$

$$\frac{r \times \frac{1}{r} \cos \theta - \cos \theta}{\frac{1}{r} \cos \theta - r \cos \theta} = \frac{1 - \cos \theta}{\cos \theta} = r$$



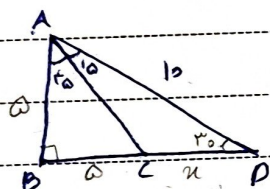
$$r y + x r = 10$$

$$x = 1$$

$$v + y + 10 + 10 = r \times 1$$

$$r \times \sin A = \frac{y}{10} \quad (9)$$

$$\frac{y}{10}$$



$$\frac{a}{10} = \sin \theta = \frac{AB}{10} \Rightarrow \frac{1}{r} = \frac{AB}{10} \Rightarrow AB = a$$

$$\tan \theta = \frac{BC}{AB} = 1 = \frac{BC}{a} \Rightarrow BC = a$$

$$\cos \theta = \frac{AB}{AC} = \frac{a}{10} = \frac{1}{r} \Rightarrow a \sqrt{r} = 10 + a$$

$$a \sqrt{r} - a = 10$$

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$$\sin \theta = \frac{1}{r} \quad \tan \theta = \frac{1}{r} \quad (10)$$

$$\sin \theta = \frac{1}{r}$$

$$\cos \theta = \frac{1}{r}$$

$$\tan \theta = \frac{\sin \theta}{\cos \theta}$$

$$\sin \theta = \frac{1}{\sqrt{10}}$$

