

$$\frac{\pi}{180} \times \frac{180}{\pi} = \frac{\pi}{180} \times \frac{180}{\pi} = 1 \text{ rad}$$

در اینجا $\frac{\pi}{180}$ را به 1 تبدیل می‌کنیم

(الف) $27^\circ = (27) \text{ rad}$

$$125 \times \frac{\pi}{180} = \frac{125\pi}{180}$$

(ب) $125^\circ = (125) \text{ rad}$

$$\frac{\pi}{180} \times \frac{180}{\pi} = 1 \text{ rad}$$

در اینجا $\frac{\pi}{180}$ را به 1 تبدیل می‌کنیم

(2) $\frac{\pi}{180} = (1)^\circ$

$$\frac{\pi}{180} \times \frac{180}{\pi} = 1 \text{ rad}$$

(3) $\frac{\pi}{9} = (1)^\circ$

$$\frac{125a}{9} \rightarrow \frac{125a}{9} \Rightarrow 125a^\circ$$

$$125a^\circ + \frac{90a}{9} + 10a = 225a^\circ + \frac{90a}{9}$$

$$90a = 180$$

$$a = 2$$

$$\frac{a}{\pi} \times \frac{\pi}{180} = \frac{90a}{9}$$

$$\frac{125a}{9} + \frac{90a}{9} = \frac{90a}{9}$$

(الف) $\cos 90^\circ \cos 10^\circ - \sin 90^\circ \sin 10^\circ = \cos 100^\circ$

(ب) $\frac{\frac{1}{\sqrt{2}} - \frac{1}{\sqrt{2}}}{\frac{1}{\sqrt{2}} + \frac{1}{\sqrt{2}}} = \frac{\frac{1}{\sqrt{2}} - \frac{1}{\sqrt{2}}}{\frac{1}{\sqrt{2}} + \frac{1}{\sqrt{2}}} = \frac{0}{\frac{2}{\sqrt{2}}} = 0$

$$\sin 10^\circ \cos 90^\circ + \cos 10^\circ \sin 90^\circ = \sin 100^\circ$$

$$\frac{1}{\sqrt{2}} = \sin \theta$$

زاویه θ برابر با 45° است

$$\theta = 45^\circ$$

$$1, \omega$$

$$-\frac{1}{\sqrt{2}} + \frac{1}{\sqrt{2}} = \frac{1}{\sqrt{2}}$$

$$\left(\frac{\sqrt{2}}{2}\right) = \sin \theta$$

$$\tan \theta = 1$$

$$\frac{1 \tan 10^\circ (1 - \tan 10^\circ)}{(1 - \cot 10^\circ)^2} = \tan \theta$$

$$\Rightarrow \frac{1 \times \frac{1}{\sqrt{2}} \times \frac{1}{\sqrt{2}}}{\frac{1}{9}} = \frac{\frac{1}{2}}{\frac{1}{9}} = \frac{9}{2} = \frac{1}{\sqrt{2}} = \sqrt{2}$$

$$\sqrt{2} = \tan \theta$$

$$\theta = 45^\circ$$

θ بر حسب رادان $\frac{\pi}{4}$

$$\frac{1 \sin \theta - \cos \theta}{\sin \theta - \cos \theta}$$

$$\frac{1 \sin \theta - \cos \theta}{\sin \theta - \cos \theta} = \frac{1 - 1}{1 - 1} = \frac{0}{0}$$

$$\frac{1 - 1}{1 - 1} = \frac{1}{1} = 1$$

$$\tan \theta = 1$$

