

نام و نام خانوادگی فرزند صالحی پاسخنامه تشریحی تکلیف شماره ۱۴ کلاس (روز جمعه)

$$۱) \quad 2\pi = (n) \text{ rad} \rightarrow \frac{D}{180} = \frac{\text{Rad}}{\pi} \rightarrow \frac{2\pi \times \pi}{180} = \text{Rad} \rightarrow \frac{2}{45} \pi \rightarrow \boxed{\frac{2}{45} \pi}$$

$$۲) \quad 11\pi = (n) \text{ rad} \rightarrow \frac{11\pi}{180} = \frac{\text{Rad}}{\pi} \rightarrow \boxed{\frac{11\pi}{180}}$$

$$۳) \quad \frac{2\pi}{11} \text{ rad} = (n)^\circ \rightarrow \frac{D}{180} = \frac{\frac{2\pi}{11}}{\pi} \rightarrow D = \frac{0 \times 180}{11} \rightarrow \boxed{\frac{2\pi}{11}}$$

$$۴) \quad \frac{2\pi}{9} \text{ Rad} = (n)^\circ \rightarrow \frac{D}{180} = \frac{\frac{2\pi}{9}}{\pi} \rightarrow D = \frac{2 \times 180}{9} \rightarrow \boxed{\frac{40}{3}}$$

$$۱) \quad \frac{120}{9} / \frac{a\pi}{\pi} \text{ Rad} / a = ?^\circ / \frac{D}{180} = \frac{\text{Rad}}{\pi} = \frac{6}{\pi}$$

$$\frac{D}{180} = \frac{120}{9} \rightarrow D = \frac{120 \times 180}{9} \rightarrow \boxed{120}$$

$$\frac{a\pi}{\pi} = \frac{D}{180} \rightarrow \frac{a}{\pi} = \frac{D}{180} \rightarrow \boxed{D = 22,500}$$

$$\left\{ \begin{array}{l} 1. a + 12.8a + 22.8a = 180 \\ a(\pi) = 180 \rightarrow \boxed{a = 2} \end{array} \right.$$

$$الف) \quad \cos 4. \cos 2. - \sin 4. \sin 2. - \tan 2\omega + 2 \cot 2\omega$$

$$\left(\frac{1}{2} \times \frac{\sqrt{3}}{2} \right) - \left(\frac{\sqrt{3}}{2} \times \frac{1}{2} \right) - 1 + 2(1) \rightarrow \text{جواب: } ①$$

$$ب) \quad \tan 2. + \tan 2\omega + \tan 4. \Rightarrow \frac{1}{\sqrt{3}} + 1 + \sqrt{3} \rightarrow \frac{1+\sqrt{3}}{\sqrt{3}-1} \rightarrow \frac{1+\sqrt{3}}{\sqrt{3}} = \boxed{\frac{1+\sqrt{3}}{\sqrt{3}}}$$

$$- \sin 2. \cos 4. + \cos 2. \sin 4. = \sin^2 \theta / \tan \theta = ?$$

$$- \sin^2 2. + \cos^2 2. = \sin^2 \theta$$

$$- \frac{1}{2} + \frac{\sqrt{3}}{2} = \frac{\sqrt{3}}{2} = \left(\frac{1}{2} \right) / \sin^2 \theta = \frac{1}{2} \rightarrow \boxed{\sin \theta = \frac{1}{\sqrt{2}}} \rightarrow \text{نمودار مثلث قائم الزاویه}$$

$$\Rightarrow \tan \theta \rightarrow \frac{\sin}{\cos} \rightarrow \frac{1}{1} = 1 \rightarrow \text{جواب: } ①$$

$$\frac{2 \tan 2. (1 - \tan^2 2.)}{(1 - \cot^2 4.)^2} \rightarrow \frac{\frac{2}{\sqrt{3}} \left(1 - \frac{1}{3} \right)}{\left(1 - \frac{1}{3} \right)^2} \rightarrow \frac{\frac{2}{\sqrt{3}} \cdot \frac{2}{3}}{\left(\frac{2}{3} \right)^2} = \frac{4}{3\sqrt{3}} = \boxed{\frac{4\sqrt{3}}{9}}$$

$$\left(1 - \frac{1}{3} \right)^2 \rightarrow \left(\frac{2}{3} \right)^2 = \frac{4}{9}$$

$$\theta = 45^\circ - \tan \theta = \sqrt{3}$$

$$\frac{4}{9} = \frac{\text{Rad}}{\pi} = \left(\frac{4}{9} \right) \pi$$

$\tan \theta = \frac{a}{b}$ $h \rightarrow \sqrt{a^2 + b^2} \rightarrow \sqrt{4^2 + 3^2}$ $\frac{4}{5}$	$\frac{3 \sin \theta - \cos \theta}{\sin \theta - 2 \cos \theta} = ? \rightarrow \frac{3 \times \frac{4}{5} - \frac{3}{5}}{\frac{4}{5} - 2(\frac{3}{5})}$ $\frac{12}{5} - \frac{3}{5} = \frac{9}{5}$ $\frac{9}{5} \div \frac{1}{5} = 9$	6
$\sin \alpha = \frac{4}{5}$ $h = \sqrt{4^2 + 3^2} = 5$	$\frac{4}{5} = \frac{4}{5} \rightarrow \frac{4}{5} = 1.0$ $\frac{1}{5} \rightarrow \frac{4+3+1.0+3+3}{5} = \frac{14}{5}$ $\frac{14}{5} = 2.8$	7
$h = \sqrt{1^2 + 1^2} = \sqrt{2}$	$y \Rightarrow \frac{1}{2} \rightarrow \frac{1}{2} = 0.5$ $\frac{1}{2} \rightarrow \frac{1+1+0.5+1+1}{2} = \frac{4.5}{2} = 2.25$	8
الف) $\sin \theta$	ب) $\cos \theta$	9
$\tan \alpha = \frac{1}{3}$ $h = \sqrt{1^2 + 3^2} = \sqrt{10}$	$\frac{\sin}{\cos} = \frac{1}{3} \rightarrow \frac{1}{3} = 0.33$ $\frac{1}{3} \rightarrow \frac{1+3+0.33+1+3}{3} = \frac{8.33}{3} = 2.78$	10