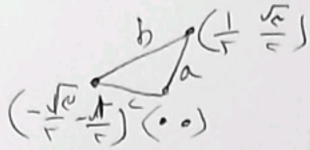
نام و نام خانوادگی ..علیرضا احسان‌پور...... پاسخنامه تشریحی تکلیف شماره .... کلاس ....

۱	$\dfrac{\frac{a\sqrt{3}}{2} + \frac{b\sqrt{2}}{2}}{-\frac{a}{2}+\frac{b}{2}} = -\dfrac{\sqrt{3}}{3} \to \dfrac{3\sqrt{2}-\sqrt{3}}{3\sqrt{3}-\sqrt{3}} = \dfrac{b}{a} = 13$
۲	$P \to 60^\circ \to P' = 210^\circ$  $a = \sqrt{(\frac{1}{2})^2 + (\frac{\sqrt{3}}{2})^2} = 1$ $b = \sqrt{(\frac{1}{2}+\frac{\sqrt{3}}{2})^2 + (\frac{1}{2}+\frac{\sqrt{3}}{2})^2} = \sqrt{1+\sqrt{3}}$ $c = \sqrt{(\frac{\sqrt{3}}{2})^2 + (\frac{1}{2})^2} = 1$ $2 + \sqrt{1+\sqrt{3}}$
۳	$\frac{\pi}{9} \times \frac{180}{\pi} = 20^\circ \Rightarrow \{20, 40\}$ ، $\div 2$
۴	$\lvert 5.5m - 30(3) \rvert = 20$ → $m = 20$ بار دوم ✓ ؛ → $m = \frac{140}{11}$ بار اول
۵	 $-\frac{1}{2} < \frac{m-3}{5} \leq 1 \to \frac{1}{2} < m \leq 8 \to 1, 2, 3, 4, 5, 6, 7, 8 \to$ ۸ عدد

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$$\frac{\cos 15 - k\sin 15}{-\cos 15 - 2\sin 15} = 3 \Rightarrow \frac{\sin 15}{\cos 15} = \frac{1}{4}$$

$$\frac{4-k}{-4-2} = 3 \rightarrow k = 22$$

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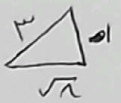
$$\frac{\cot x + \tan x}{\tan x - 2\tan x} = \frac{\sqrt{8} + \frac{1}{\sqrt{8}}}{\frac{-1}{\sqrt{8}}} = \frac{9}{-1} = -9$$

$$1 - \cos x = 2 + 2\cos x \rightarrow \cos x = -\frac{1}{3}$$



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$$r_B \times \frac{9\pi}{10} = r_A \times \frac{18\pi}{180} \rightarrow \frac{r_A}{r_B} = \frac{3}{5} \rightarrow \frac{\pi r_A^2}{2r_B^2} = \frac{9}{50}$$

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$$\frac{\sqrt{2}\,x}{2} = \sqrt{2} \rightarrow x = 2$$

$$\sin 2\alpha = 2\sin\alpha\cos\alpha = 2 \times \frac{\sqrt{2}}{\sqrt{7}} \times \frac{2}{\sqrt{7}} = \frac{4\sqrt{2}}{7}$$

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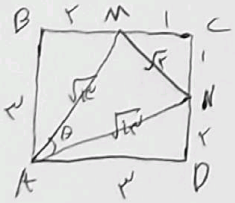
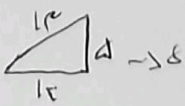


$$\sqrt{2} = \sqrt{(\sqrt{2})^2 + (\sqrt{10})^2 - 2\sqrt{2}\sqrt{10}\cos\theta} \Rightarrow \cos\theta = \frac{24}{24} = \frac{11}{12}$$



$$\rightarrow \sin\theta = \frac{d}{12}$$