Analysis CP- Unit 1 Review Answers

1a. $2.5(-360°) = -900°$ 1b. $-\left(57° + \frac{45'}{60'}\right) = -57.75°$ 1c. $\frac{13\pi}{3} \cdot \frac{180°}{\pi} = 780°$

2. $\sin\left(\frac{11\pi}{6}\right) = -\frac{1}{2}$, $\cos\left(\frac{11\pi}{6}\right) = \frac{\sqrt{3}}{2}$, $\tan\left(\frac{11\pi}{6}\right) = -\frac{\sqrt{3}}{3}$

$\csc\left(\frac{11\pi}{6}\right) = -2$, $\sec\left(\frac{11\pi}{6}\right) = \frac{2\sqrt{3}}{3}$, $\cot\left(\frac{11\pi}{6}\right) = -\sqrt{3}$

3.	4a.	4b.
$\cos 90° = 2\cos^2 45° - 1$ $0 = 2\left(\frac{\sqrt{2}}{2}\right)^2 - 1$ $0 = 2\left(\frac{1}{2}\right) - 1$ $0 = 0$	$3\cos\left(\frac{\pi}{2}\right)\cos\left(\frac{\pi}{6}\right) + \sin\left(\frac{\pi}{3}\right)\sin^2\left(\frac{\pi}{6}\right)$ $3(0)\left(\frac{\sqrt{3}}{2}\right) + \left(\frac{\sqrt{3}}{2}\right)\left(\frac{1}{2}\right)^2$ $0 + \frac{\sqrt{3}}{8}$	$3\csc\left(\frac{\pi}{2}\right) + 4\sec\left(\frac{\pi}{2}\right)$ $3(1) + 4(\text{UNDEFINED})$ UNDEFINED

5a. $\theta = 135°,\ 315°$ 5b. $\theta = 30°, 150°$ 5c. $\theta = 0°, 180°$ 5d. No Sol

6a. Ref $\angle = 17°$ 6b. Ref $\angle = 5°$ 6c. Ref $\angle = \frac{\pi}{6}$ 6d. Ref $\angle = \frac{\pi}{4}$

7a. $\tan\theta = -1$ 7b. $\cos\theta = -\frac{\sqrt{2}}{2}$ 7c. $\theta = 135°$ 7d. Ref $\angle = 45°$

8a. $\frac{120}{360}(2\pi \cdot 3) = 2\pi$ 8b. $\frac{120}{360}(\pi \cdot 3^2) = 3\pi$

9. $1 + \frac{2}{3}(360°) = 240° - 90° = 150°$

ref $\angle = 30$ $60\sin 30° + 60 + 5 = 95$

10. $\cos\theta = x$ and $\sin\theta = y$. Given that $x^2 + y^2 = 1$ on the unit circle, then $(\sin\theta)^2 + (\cos\theta)^2 = 1$