Honors Pre-Calculus Name_____

Solving Sin & Cos Equations - Practice

Date_____ Period____

Solve each equation for $0 \le \theta < 360$**.**

1) $-1 + \cos\theta = \dfrac{-2-\sqrt{2}}{2}$

$\{135, 225\}$

2) $5 + \cos\theta = \dfrac{10+\sqrt{2}}{2}$

$\{45, 315\}$

3) $2\cos\theta = -\sqrt{2}$

$\{135, 225\}$

4) $-1 = -2\cos\theta$

$\{60, 300\}$

5) $5 + \sin\theta = \dfrac{9}{2}$

$\{210, 330\}$

6) $-4 + \sin\theta = -\dfrac{9}{2}$

$\{210, 330\}$

7) $-5 + \sin\theta = -5$

$\{0, 180\}$

8) $-2 = -3 + \sin\theta$

$\{90\}$

9) $5 + \cos -3\theta = 4$

$\{60, 180, 300\}$

10) $1 + \cos 2\theta = \frac{2 + \sqrt{3}}{2}$

$\{15, 165, 195, 345\}$

11) $4 + \cos \frac{\theta}{2} = \frac{8 + \sqrt{3}}{2}$

$\{60\}$

12) $4 + \cos \frac{\theta}{4} = 5$

$\{0\}$

13) $5 + \sin -3\theta = 6$

$\{90, 210, 330\}$

14) $\frac{10 - \sqrt{2}}{2} = 5 + \sin 3\theta$

$\{75, 105, 195, 225, 315, 345\}$

15) $4 = 4 + \sin 2\theta$

$\{0, 90, 180, 270\}$

16) $-4\sin -4\theta = 2\sqrt{3}$

$\{15, 30, 105, 120, 195, 210, 285, 300\}$