

**BLM 4–6 Section 4.4 Extra Practice**

1. a)  $60^\circ, 300^\circ$  b)  $120^\circ, 300^\circ$

c)  $30^\circ, 150^\circ$  d)  $120^\circ, 240^\circ$

2. a)  $\frac{\pi}{3}, \frac{2\pi}{3}, \frac{4\pi}{3}, \frac{5\pi}{3}$  b)  $\frac{\pi}{3}, \frac{2\pi}{3}, \frac{4\pi}{3}, \frac{5\pi}{3}$

c)  $\frac{\pi}{2}, \frac{\pi}{4}, \frac{5\pi}{4}$  d)  $\frac{\pi}{3}, \frac{5\pi}{3}$

3. a)  $\frac{\pi}{2}$  b)  $0, \frac{\pi}{3}, \frac{5\pi}{3}$  c)  $-\frac{\pi}{2}, \frac{\pi}{2}, \frac{\pi}{6}, \frac{5\pi}{6}$

4. a) 1.35, 4.49 b) 1.76, 4.90

c) 1.14, 2.00 d) 0.08, 3.22

LS	RS	LS	RS
$\sin^2 \theta - 1$	0	$\sin^2 \theta - 1$	0
$= \left(\sin \frac{\pi}{2}\right)^2 - 1$		$= \left(\sin \frac{3\pi}{2}\right)^2 - 1$	
$= (1)^2 - 1$		$= (-1)^2 - 1$	
$= 0$		$= 0$	

6. No. Example: The range of the cosine function is  $[-1, 1]$ . Cosine is undefined for values that are outside of this range.

7. a) 0.7854, 2.1910, 3.9270, 5.3326

b) 1.1071, 1.240, 4.2487, 4.3906

c) 0, 1.3258, 4.4674

8.  $2\pi n, n \in \mathbb{I}$

9.  $x = \pi n, -\frac{\pi}{2} + 2\pi n$

10.  $(1+4n)\frac{\pi}{6}, n \in \mathbb{I}$