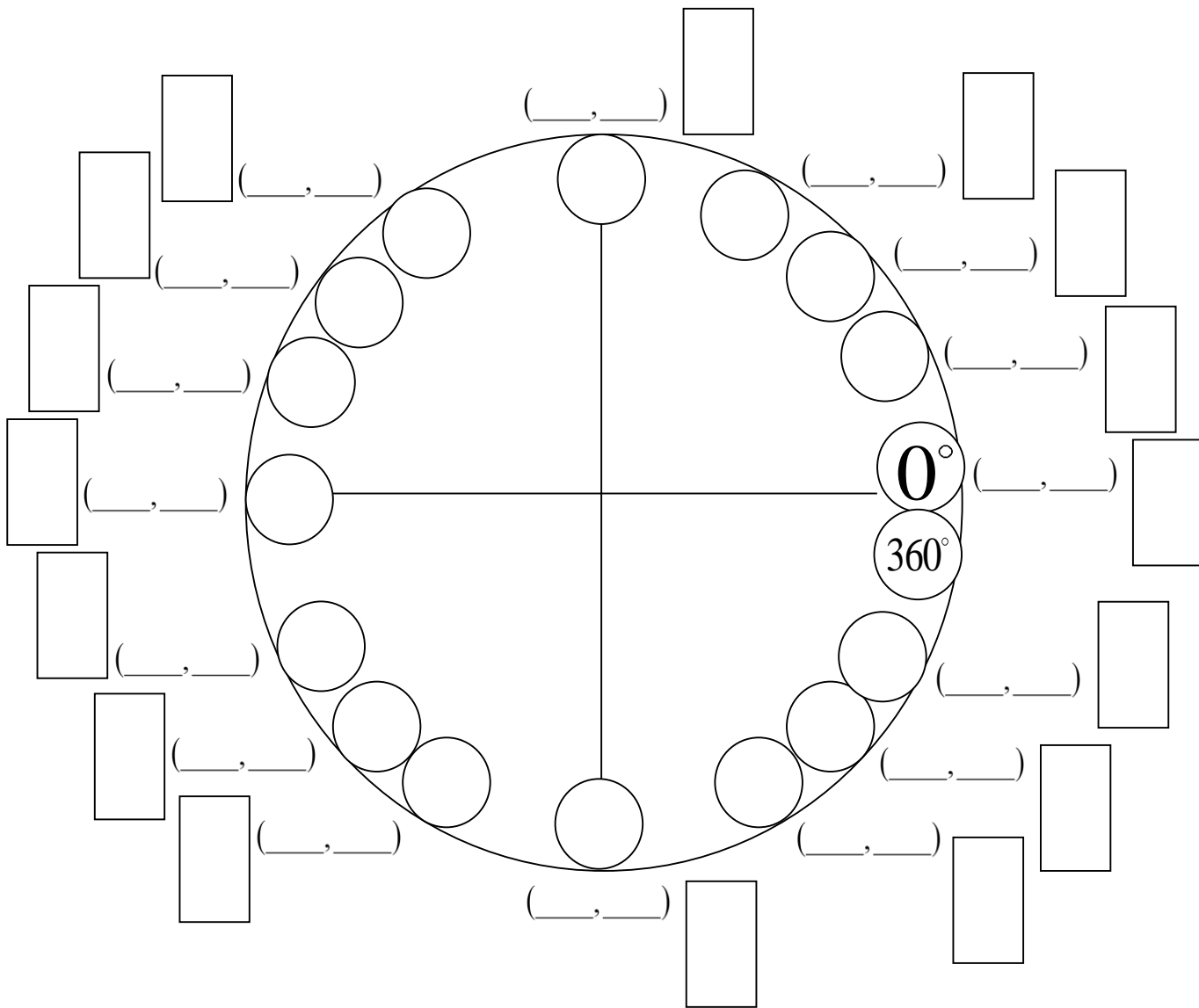


Place appropriate radian measures in the rectangles, degree measures in the circles, and coordinates in parenthesis.

Try to complete this without the use of notes.



- A. What are the ratios that make up a 45, 45, 90 degree triangle? _____
- B. What are the ratios that make up a 30, 60, 90 degree triangle? _____
- C. What is the reference angle of $\frac{\pi}{4}, \frac{3\pi}{4}, \frac{5\pi}{4}$, and $\frac{7\pi}{4}$ family? _____
- D. What is the reference angle of $\frac{\pi}{6}, \frac{5\pi}{6}, \frac{7\pi}{6}$, and $\frac{11\pi}{6}$ family? _____
- E. What is the reference angle of $\frac{\pi}{3}, \frac{2\pi}{3}, \frac{4\pi}{3}$, and $\frac{5\pi}{3}$ family? _____
- F. What are the coordinates of the $\frac{\pi}{4}$ family? _____
- G. What are the coordinates of the $\frac{\pi}{6}$ family? _____
- H. What are the coordinates of the $\frac{\pi}{3}$ family? _____
- I. Therefore, what conclusion can you make about its coordinates and its respected radian family? _____

Use the unit circle to find the exact value of each trigonometric function without use of technology.

1) $\cos \frac{\pi}{3}$	2) $\sin \frac{7\pi}{6}$	3) $\tan \frac{3\pi}{4}$	4) $\csc \frac{\pi}{2}$
5) $\sec 750^\circ$	6) $\sin\left(-\frac{13\pi}{6}\right)$	7) $\cot \frac{5\pi}{6}$	8) $\sin \frac{11\pi}{6}$
9) $\sin(-270^\circ)$	10) $\cot 0$	11) $\csc 150^\circ$	12) $\cot \frac{3\pi}{2}$
13) $\sin 300^\circ$	14) $\cos\left(-\frac{5\pi}{4}\right)$	15) $\cos(-120^\circ)$	16) $\tan \frac{5\pi}{4}$