Name:_____

Radians Day 1

Find the radian measure of the angle with the given degree measure

1. 72° $\dfrac{2\pi}{5}$

2. -45° $-\dfrac{\pi}{4}$

3. -75° · $\dfrac{\pi}{180} = \dfrac{-5\pi}{12}$
   $\dfrac{}{12}$

4. 1080° 6π

Find the degree measure of the angle with the given radian measure

5. $\dfrac{7\pi}{6}$ · $\dfrac{180}{\pi}$ 30 $210°$

6. $-\dfrac{5\pi}{4}$ $-225°$

7. $\dfrac{5\pi}{18}$ $50°$

8. 13 · $\dfrac{180}{\pi} = \dfrac{2340}{\pi}$ $\approx 745°$

Find two positive and two negative coterminal angles for the given radian measure

9. $\dfrac{3\pi}{4}$ $+\dfrac{8\pi}{4} = \boxed{\dfrac{11\pi}{4}}$ $+\dfrac{8\pi}{4} = \boxed{\dfrac{14\pi}{4}}$

   $-\dfrac{8\pi}{4} = \boxed{\dfrac{-5\pi}{4}}$ $-\dfrac{8\pi}{4} = \boxed{\dfrac{-13\pi}{4}}$

10. $\dfrac{-5\pi}{8}$ $\dfrac{11\pi}{8}, \dfrac{27\pi}{8}$

    $\dfrac{-21\pi}{8}, \dfrac{-37\pi}{8}$

Find an angle between 0 and 2π that is coterminal with the given angle

11. $\dfrac{17\pi}{6}$ $\dfrac{5\pi}{6}$

12. $-\dfrac{7\pi}{3}$ $\dfrac{5\pi}{3}$

13. 87π π

Fill in the radian values. Try to look at the values as a part to the whole circle instead of converting every degree value.

14. $\dfrac{17\pi}{4} - \dfrac{8\pi}{4} = \dfrac{9\pi}{4}$

$\dfrac{9\pi}{4} - \dfrac{8\pi}{4} = \boxed{\dfrac{\pi}{4}}$

Unit circle with handwritten radian measures:

- $0°$ — 0
- $30°$ — $\frac{\pi}{6}$
- $45°$ — $\frac{\pi}{4}$
- $60°$ — $\frac{\pi}{3}$
- $90°$ — $\frac{\pi}{2}$
- $120°$ — $\frac{2\pi}{3}$
- $135°$ — $\frac{3\pi}{4}$
- $150°$ — $\frac{5\pi}{6}$
- $180°$ — π
- $210°$ — $\frac{7\pi}{6}$
- $225°$ — $\frac{5\pi}{4}$
- $240°$ — $\frac{4\pi}{3}$
- $270°$ — $\frac{3\pi}{2}$
- $300°$ — $\frac{5\pi}{3}$
- $315°$ — $\frac{7\pi}{4}$
- $330°$ — $\frac{11\pi}{6}$