

Bellwork Alg 2B Friday, February 16, 2018

Use the Unit Circle to find the EXACT value of each.

1. $\tan \frac{50\pi}{3}$

2. $\cos \frac{-25\pi}{6}$

3. $\sin 72\pi$

4. $\cos 1215^\circ$

5. $\sin(-2220^\circ)$

6. $\tan \frac{39\pi}{2}$

7. Which of the following is a factor of this polynomial? $4a^2 + 20ab + 25b^2$

- A) $a + b$ B) $2a + 5b$ C) $4a + 5b$ D) $4a + 25b$

8. Thomas installed a new stove in his restaurant. At the time of installation, the stove had a value of \$800. Thomas estimates that each year the value of the stove will depreciate by 20% of the previous year's estimated value. What is the estimated value of the stove exactly 2 years after Thomas installed it?

- A) \$480 B) \$512 C) \$556 D) \$640

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Use the Unit Circle to find the EXACT value of each.

1. $\tan \frac{50\pi}{3}$

$= \tan \frac{2\pi}{3}$

$= \frac{\frac{\sqrt{3}}{2}}{-\frac{1}{2}} = -\sqrt{3}$

2. $\cos \frac{-25\pi}{6}$

$= \cos \frac{11\pi}{6}$

$= \frac{\sqrt{3}}{2}$

3. $\sin 72\pi$

$= \sin 0$

$= 0$

4. $\cos 1215^\circ$

$= \cos 135^\circ$

$= -\frac{\sqrt{2}}{2}$

5. $\sin(-2220^\circ)$

$= \sin 300^\circ$

$= -\frac{\sqrt{3}}{2}$

6. $\tan \frac{39\pi}{2}$

$= \tan \frac{3\pi}{2}$

$= \frac{-1}{0} = \text{undefined}$

7. Which of the following is a factor of this polynomial? $4a^2 + 20ab + 25b^2$

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$$\begin{array}{c} 100 \\ \diagdown \quad \diagup \\ 10 \quad 10 \\ \diagup \quad \diagdown \\ 20 \end{array}$$

	$2a$	$+5b$
$2a$	$4a^2$	$10ab$
$+5b$	$10ab$	$25b^2$

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$b = 100\% - 20\% = 80\% \rightarrow .8$

$y = \$800(.8)^2 = \512