PROPERTIES Objective C

1. Describe the values of $\theta$ between 0 and $2\pi$ which satisfy $0 \leq \tan \theta \leq 1$.

2. Describe the values of $\theta$ between 0 and $2\pi$ with $\tan \theta < 0$ and $\cos \theta < 0$.

PROPERTIES Objective D

In 3-5, use the Periodicity Theorem to evaluate.

3. $\tan 2850^\circ$  
4. $\sin 2070^\circ$  
5. $\cos 495^\circ$

In 6-8, use the Periodicity Theorem and the fact that $\tan \frac{4\pi}{7} \approx -4.381$ to evaluate.

6. $\tan \frac{13\pi}{7}$  
7. $\tan \frac{5\pi}{7}$  
8. $\tan \frac{22\pi}{7}$

REPRESENTATIONS Objective I

9. Consider $h(\theta) = \tan \theta$.

a. Sketch a graph of $h(\theta)$ for $-\frac{\pi}{2} < \theta < \frac{3\pi}{2}$.

b. Label the y-intercept and zeros of $h$.

c. Identify the period of $h$.

d. Give the domain of $h$.

e. Give the range of $h$.

f. Tell whether $h$ is an odd function, an even function, or neither. Justify your answer.