Pre-Calculus

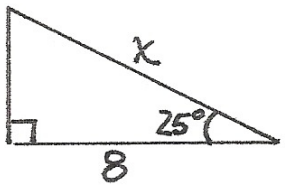
[redacted] - Trig WS practice #1

NAME _____

DATE _____

A# _____

1. Find x.



2. As I stand 40 ft from a base of a building which is 280 ft tall, what is the angle of elevation of the tilt of my head?

3. Sketch $\cos\theta = -\frac{1}{3}$ where $90° \le \theta \le 180°$ and find $\sin\theta$, $\tan\theta$, and θ.

4. The terminal side of an angle passes through the point $(3, -4)$. Sketch this angle and find $\sin\theta$, $\sec\theta$, and θ.

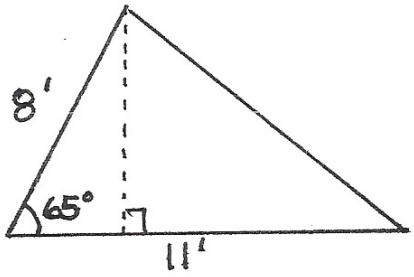
5. Know your table! Find the exact value of each.

a. $\sin 60° =$ b. $\cos 330° =$ c. $2\sin\frac{\pi}{6}\cdot\cos\frac{\pi}{6}$

6. Find θ such that $\theta = \sin^{-1}(0.3191)$ and $0 \le \theta \le 360°$

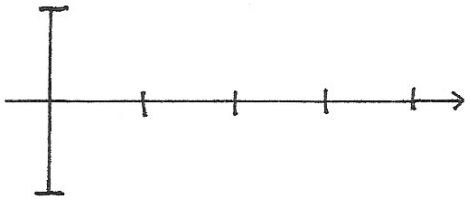
7. Solve $4 + 2\cos\theta = 5$ over $0 \le \theta \le 360°$

8. Find the area of this triangle. It is NOT a right triangle.

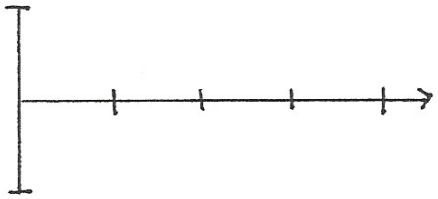


9. Sketch each graph over the given domain. Label the graph correctly.

a. $y = \cos\theta$, $0 \le \theta \le 360°$



b. $y = \sin x$, $0 \le x \le 2\pi$



BONUS: # 1 - Multiple Choice - Show why

If a circle has a radius of 6cm, then what is the length of the arc intercepted by a central angle of 210°?

a. $7\pi/6$ b. $7\pi/2$ c. 7π d. $\frac{15\pi}{2}$ e. 8π

#2 In ΔABC, $\frac{\cos A \cdot \cot B}{\csc A} =$

a. $\frac{a^2 \cdot b}{c^3}$ b. $\frac{b^2}{c^2}$ c. 1 d. $\frac{a^2}{c^2}$ e. $\frac{a^3}{b \cdot c^2}$