PreCalculus Unit 5 Review (Practice Test)   Name: _____
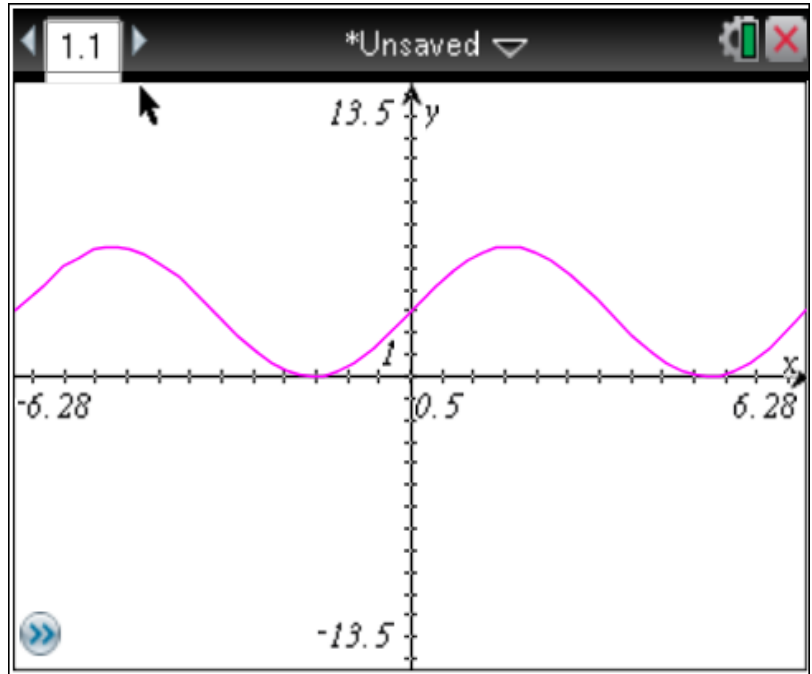
Non-Calculator
1. Express 250° in radians.

2. Express $7\pi/3$ in degrees.

3. What is the coordinate of the point on the terminal side of $5\pi/6$?

4. Evaluate the trigonometric function using its period as an aid: $\cos 5\pi$

5. Given $\cot \theta = 5/12$ and $\cos \theta > 0$, find $\sin \theta$.

6. Find the amplitude and period of $y = 3.25 \cdot \cos 3x$.

7. Evaluate $\cos[\arcsin(1/2)]$.

8. Find *a*, *b*, *c*, and d for f(*x*) = *d* + *a*·cos(*bx* – *c*) so that the function matches
    the graph.
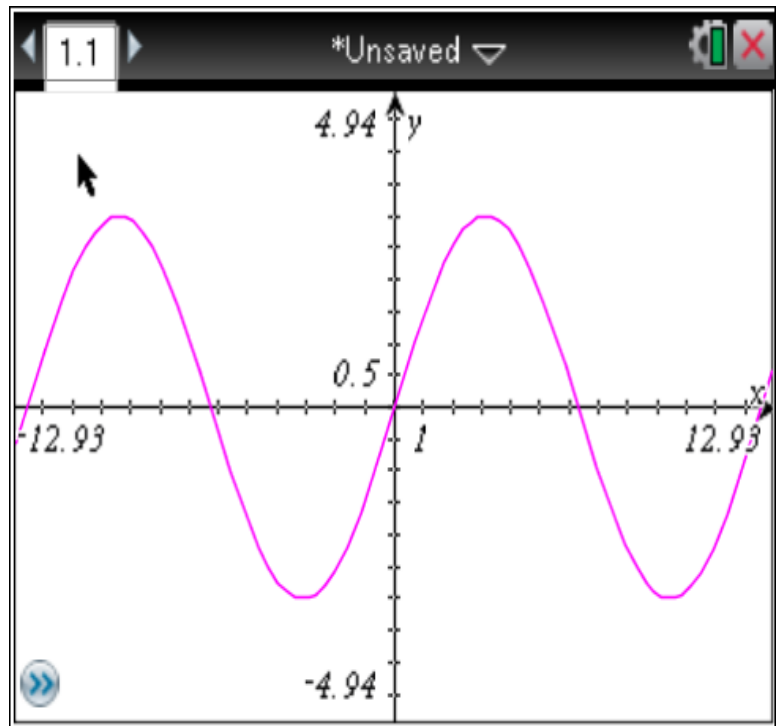

$2\pi = 6.28318$

9. Find the amplitude and period of the function graphed at the right:

    Amplitude: _____

    Period: _____

10. Write the equation of the function whose
    graph is at the right.

11. Determine the quadrant of the following: $\frac{13\pi}{3}$

$2\pi = 6.28318$

12. Express the following in radians: 445°

13. Find the point (a, b) on the unit circle that corresponds to the real number t where $t = \dfrac{5\pi}{3}$.
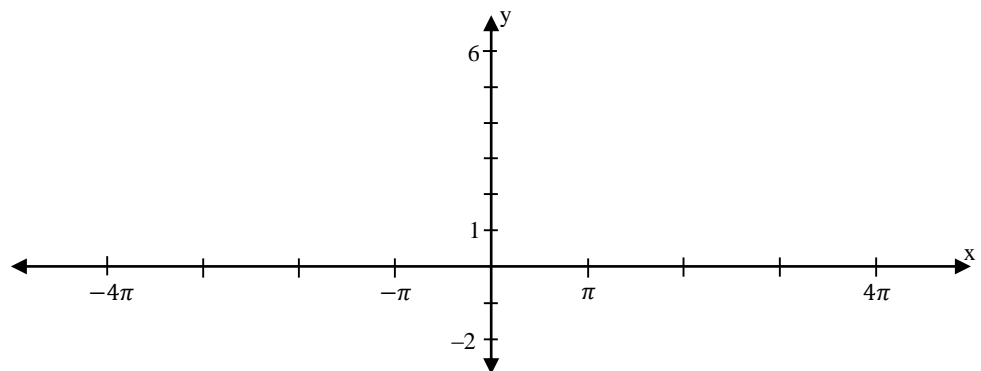Then find sine, cosine, and tangent.

14. Find $\cot x$ if $\cos x = 7/9$ and $\sin x < 0$.

15. Find an algebraic expression that is equivalent to the expression below:

$\cot(\arcsin(5x/7))$

16. Sketch the graph and show TWO full periods.

$f(x) = -2\sin(x) + 3$

17. Given the equation $y = 2 \cdot \sin(3x - \pi) - 5$, find the following:

      Amplitude: _____   Period: _____

      Phase Shift: _____   Vertical Shift: _____

      Domain: _____   Range: _____

Calculator

18. Evaluate csc 17.2°.

19. Find the amplitude and period of $y = 2 \sin \frac{x\pi}{3}$.

      Amplitude: _____

      Period: _____

20. Approximate TWO values of θ ($0° \leq \theta < 360°$) that satisfies the equation below. Round to three decimal places.

    $\cot \theta = -0.5$

21. Evaluate with a calculator: $\sin(2\pi/3)$