ALGEBRA II NAME _____

Trigonometry Review #2

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DO NOT DO ANY WORK ON THIS SHEET!!!!

1. Find the exact value for $\tan 120^\circ$. (Do not use a calculator)

2. Find the exact value for $\cos\frac{3\pi}{4}$. (Do not use a calculator)

3. Find the exact value for $\sin 330^\circ$. (Do not use a calculator)

4. Find the three trigonometric function of θ if $\left(-2,\sqrt{5}\right)$ lies on the terminal side of θ.

   $\sin\theta =$ _____ $\cos\theta =$ _____ $\tan\theta =$ _____

5. Find the remaining trigonometric functions of θ if $\cos\theta = \frac{5}{13}$ and θ is in Quadrant IV.

   $\sin\theta =$ _____ $\tan\theta =$ _____

6. Convert $\frac{9\pi}{10}$ to degrees.

7. Convert 600° to radians.

8. Find the exact value for $\cos\pi$. (Do not use a calculator)

9. Find the exact value for $\tan^2 60^\circ + \sin 30^\circ + \cos^2 45^\circ$. (Do not use a calculator)

10. For the angle $\theta = \frac{11\pi}{3}$:

    a. Convert to degrees.

    b. Draw in standard position.

    c. Name the reference angle in radians and degrees.

    d. Find the three trigonometric functions of θ.

    $\sin\theta =$ _____ $\cos\theta =$ _____ $\tan\theta =$ _____

11. Identify the amplitude, period, and sinusoidal axis for $y = -5\cos 2x + 8$ (Do not use a calculator)

12. For right triangle ABC, C=90°. If a=8 and c=30, find:
    a. sin A (fraction) b. cos A (fraction) c. tan B (fraction)

13. For right triangle ABC, C=90°. If b=4.3 inches and c=7.8 inches, find:
    a. A

    b. B

    c. a

14. For right triangle ABC, C=90°. If $A = 38^\circ$ and b= 5.1 feet, find:
    a. B

    b. a
    c. c

15. Find the following angles to the nearest tenth of a degree.
    a. $\sin\theta = 0.4961$

    b. $\cos\theta = .9105$

16. Find the trigonometric values to the nearest four decimal places.
    a. $\sin 73^\circ$

    b. $\tan 245^\circ$

17. A 50 foot ladder is leaning against a building. The ladder makes an angle of 37° with the ground. How tall is the building and how far is the base of the ladder from the bottom of the building?