**Algebra 2** Trigonometry Review Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**1. Determine whether each function is or is not periodic. If it is, find the period.**

**a. b. c. d.**

****

**2. Find the period and amplitude of each periodic function.**

1. **b. c. d.**

****

**3. Sketch each angle in standard position.**

 **a.  b.  c. **

**4.** List **two** angles that are **coterminal** to the given angles.

 **a.  b. **

**5.** Find the measure of an angle between 0° and 360° **coterminal** with each given angle.

 **a.  b. **

**6.** Write each measure in radians. Express your answer **in terms of π.**

 **a.  b. **

**7.** Write each measure in degrees. Round your answer to the **nearest degree**, if necessary.

 **a. ** radians **b.** 5 radians **6b.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(1)**

**8.** Find the sine and cosine values for each angle. Give **exact value** answers.

 **a.  b. ** radians **7b. sin  =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(1)**



r=8

**9.** Use the circle to find the **length** of the indicated **arc**.

 Round your answer to the nearest tenth.

**Graph one cycle of each equation. Label all critical points.**

**10.  Amplitude:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Period:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**11.  Amplitude:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Period:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**12.  Amplitude:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Period:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**13.  Amplitude:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Period:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**How many cycles does each function have in the interval from 0 to ?**

**14.  15. **

**Identify the period for each function.**

**16.  17. **

**Identify the phase shift or translation in each. Graph one cycle of each equation.**

**18. phase shift:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**19. vertical translation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Find the amplitude and period of each function. Describe any phase shift or vertical translation.**

**20. 21.**

amplitude = amplitude =

 period = period =

 phase shift = phase shift =

 vertical translation = vertical translation =

**22. Write an equation for the sine function with amplitude 3 and period = π.**

**23. Write an equation for the translation 3 units up of .**

**Answers:**

1. a. not periodic

 b. period = 2

 c. period = 3

 d. period = 3

 2. a. amplitude = 1.5

 period = 5

 b. amplitude = 2.5

 period = 4

 c. amplitude = 2

 period = 6

 d. amplitude = 2

 period = 2

 4. a. 442°, -278°, …

 b. 130°, -590°, …

 5. a. 100°

 b. 335°

 6. a.

 b.

 7. a. 420°

 b. 286°

 8. a.

 b.

 9. 18.8

 10. amplitude = 2

 period = 2π

 11. amplitude =

 period =

 12. amplitude = 3

 period = 4π

 13. amplitude =

 period = 2

 14. 3

 15. π (about 3.14)

 16. 2

 17.

 18. π units to the right

 *graph*

 19. 3 units down

 *graph*

 20. amplitude =

 period =

 phase shift = none

 vert. translation = up

 21. amplitude =

 period =

 phase shift = left

 vert. translation = none

 22.

 23.