Honors Worksheet #2
Chapter 5

Write the letter for the correct answer in the blank at the right of each problem

1. Change 128.433° to degrees, minutes, and seconds.
   A. 128° 25’ 58’’ B. 128° 25’ 59’’ C. 128° 25’ 92’’ D. 128° 26’ 00’’ 1._____

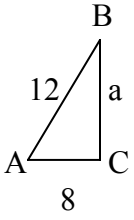
2. Write 43° 18’ 35’’ as a decimal to the nearest thousandth of a degree.
   A. 43.306° B. 43.308° C. 43.309° D. 43.310° 2._____

3. Give the angle measure represented by 3.25 rotations clockwise.
   A. ─ 1170° B. ─ 90° C. 90° D. 1170° 3._____

4. Identify for all coterminal angles between ─360° and 360° for the angle ─ 420°.
   A. ─ 60° and 300° B. ─30 and 330°
   C. 30° and ─330° D. 60° and ─300° 4._____

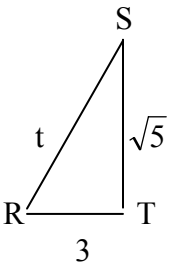
5. Find the measure of the reference angle for 1046°.
   A. ─ 56° B. 56° C. 34° D. ─34° 5._____

6. Find the value of the tangent for $\angle$A.
   A. $\frac{2\sqrt{5}}{2}$ B. $\frac{\sqrt{5}}{2}$ C. $\frac{2}{3}$ D. $\frac{\sqrt{5}}{3}$



6._____

7. Find the value of the secant for $\angle$R.
   A. $\frac{\sqrt{70}}{5}$ B. $\frac{3\sqrt{14}}{14}$ C. $\frac{\sqrt{5}}{3}$ D. $\frac{\sqrt{14}}{3}$



7._____

8. Which of the following is equal to csc θ
   A. 1/sinθ B. 1/cosθ C. 1/tanθ D. 1/secθ 8._____

9. If cot θ = 0.85 , find tan θ
   A. 0.588 B. 0.85 C. 1.176 D. 1.7 9._____

10. Find cos (− 270°).
A. undefined B. −1 C. 1 D. 0 10._____

11. Find the exact value of sec 300°.
A. − 2 B. $-\frac{2\sqrt{3}}{3}$ C. 2 D. $\frac{2\sqrt{3}}{3}$
11._____

12. Find the value of csc θ for angle θ in standard position if the Point at (5, −2) lies on its terminal side.
A. $-\frac{\sqrt{29}}{2}$ B. $-\frac{2\sqrt{29}}{29}$ C. $\frac{\sqrt{29}}{5}$ D. $\frac{5\sqrt{29}}{29}$
12._____

13. Suppose θ is an angle in standard position whose terminal Side lies in Quadrant II. If sin θ = 12/13, find the value of sec θ
A. −5/13 B. −13/15 C. −12/5 D. 13/12
13._____

For Exercises 14 and 15, refer to the figure. The angle of elevation from the end of the shadow to the top of the building is 63° and the distance is 220 feet.

14. Find the height of the building to the nearest foot.
A. 100 ft B. 196 ft C. 432 ft D. 112 ft 14._____

15. Find the length of the shadow to the nearest foot.
A. 100 ft B. 196 ft C. 432 ft D. 112 ft 15._____

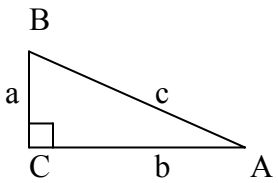
16. If 0°≤x≤360°, solve the equation sec x = -2. 16._____
A. 150° and 240° B. 210° and 330°
C. 120° and 240° D. 240° and 300°

17. Assuming an angle in Quadrant I, evaluate csc $(\cot^{-1}\frac{4}{3})$. 17._____

A. $\frac{3}{5}$ B. $\frac{5}{3}$ C. $\frac{4}{5}$ D. $\frac{5}{4}$

18. Given the triangle at the right, find *B* to the nearest tenth of a degree if *b* =10 and *c*=14. 18._____

A. 44.4° B. 35.5° C. 54.5° D. 45.6°



For Exercises 19 and 20, round answers to the nearest tenth.

19. In ΔABC, $A = 27^\circ 35'$, $B = 78^\circ 23'$, and $c = 19$. Find a. 19._____
A. 8.6 B. 9.2 C. 12.8 D. 19.4

20. If $A = 42.2^\circ$, $B = 13.6^\circ$, and $a = 41.3$, find the area of ΔABC. 20._____
A. 138.8 units^2 B. 493.8 units^2
C. 327.4 units^2 D. 246.9 units^2

21. Determine the number of possible solutions if $A = 62^\circ$, $a = 4$, and $b = 6$ 21._____
A. none B. one C. two D. three

22. Determine the greatest possible value for B if $A = 30^\circ$, $a = 5$, and $b = 6$. 22._____
A. 23.1° B. 53.1° C.143.1 $^\circ$ D. 96.9°

For Exercises 23-25, round answers to the nearest tenth.

23. In ΔABC, $A = 47^\circ$, $b = 12$, and $c = 8$. Find a. 23._____
A. 6.3 B. 8.7 C. 8.8 D. 18.4

24. In ΔABC, $a = 7.8$, $b = 4.2$, and $c = 3.9$. Find B. 24._____
A. 15.1° B. 148.7° C. 78.9° D. 16.2°

25. If a = 22, b = 14, and c = 30, find the area of ΔABC. 25._____
A. 33 units^2 B. 121.0 units^2
C. 130.2 units^2 D. 143.8 units^2

1. B 2. D 3. A 4. A 5. C 6. B 7. D 8. A 9. C 10. D 11. C 12. A
13. B 14. B 15. A 16. C 17. B 18. D 19. B 20. D 21. A 22. C 23. C 24. D
25. D