Honors Worksheet #1
Chapter 5

1. Change 225.639° to degrees, minutes, and seconds.

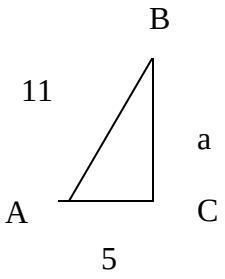
2. Write 23°16'25'' as a decimal to the nearest thousandth of a degree.

3. State the angle measure represented by 2.4 rotations clockwise.

4. Identify all coterminal angles between - 360° and 360° for the angle - 540°.

5. Find the measure of the reference angle for 562°.

For Exercises 6-8, refer to the figure.



6. Find the value of the sine for $\angle$ A.

7. Find the value of the cotangent for $\angle$ A.

8. Find the value of the secant for $\angle$ A.

9. If csc ? = - 2, find sin ?.

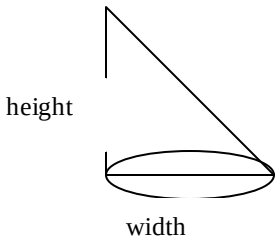
10. Find sin (- 270°).

11. Find the exact value of cot 330°.

12. Find the exact value of sec ? for angle ? in standard position if the point at (- 3, 2) lies on its terminal side.

13. Suppose ? is an angle in standard position whose terminal side lies in Quadrant IV. If cos ? = 12/13, find the value of csc ?.

For the Exercises 14 and 15, refer to the figure. The angle of elevation from the far side of the pool to the top of the waterfall is 75°, and the distance is 185 feet.



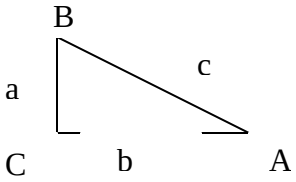
14. Find the height of the waterfall to the nearest foot.

15. Find the width across the pool to the nearest foot.

16. If 0° = x = 360°, solve cot x = - $\sqrt{3}$.

17. Assuming an angle in Quadrant I, evaluate sec ($\tan^{-1}$ ¾).

18. Given triangle at the right find B to the nearest tenth of a degree of a=8 and b=20.



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

19. In ? ABC, A= 47° 15', B= 58° 33', and c= 23. Find a.

20. If A=37.2°, B= 17.9°, and a = 22.3, find the area of ? ABC.

21. Determine the number of possible solutions if A = 47°, a =5, and b = 4

22. Determine the least possible value for c if A = 30°, a = 5 and b = 8

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

23. In ? ABC, A = 118°, b = 8. and c = 6. Find a.

24. In ? ABC. a = 9, b = 5, and c = 12. Find B.

25. If a = 12, b = 24, and c = 30, find the area of ? ABC.