CHAPTER 1, FORM B
TRIGONOMETRY

1. Find the complement of an angle whose measure is 60°.

2. Find the supplement of an angle whose measure is 114°.

Perform the calculation.

3. $180° - 50° 39' 27''$

4. $90° - 34° 26' 52''$

5. A wheel makes 192 revolutions per minute. How many revolutions does it make per second?

Convert the angle to decimal degrees and round to the nearest hundredth of a degree.

6. $31° 8' 17''$

7. $132° 58' 22''$

8. $300° 8' 4''$

Convert the angle to degrees, minutes, and seconds.

9. 209.64°

10. 31.43°

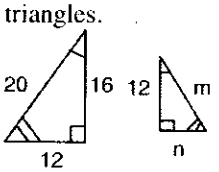
11. 59.09°

12. Find the angle of smallest possible positive measure coterminal with –98°.

13. Find the angle of smallest possible positive measure coterminal with 435°.

14. One angle of a triangle has measure $36° 30'$, and another angle has measure $61° 20'$. Find the measure of the third angle.

15. Find the values of m and n in the pair of similar triangles.



CHAPTER 1, FORM B, PAGE 2

16. A triangular floor has sides 33 ft, 42 ft, and 61 ft long. A scale drawing is made in which the smallest side is 3 in. long. What are the lengths of the other two sides in the drawing, to the nearest hundredth of an in.?

Find the values of the indicated trigonometric functions for the angle θ in standard position having the given point on its terminal side.

17. (6, –8)

18. (–3, –5)

Evaluate each of the following.

19. $3 \sin 90° + 2 \cos 180° + 5 \tan 0°$

20. $\csc^2 90° + (\sin 90°)(\cos 180°)$

21. $\sin^2 57° + \cos^2 57°$

22. Find $\sin\alpha$ and $\cos\alpha$, given the following:
$\tan\alpha = \frac{2}{5}$ and $\sec\alpha < 0$.

Decide whether each statement is *possible* or *impossible*.

23. $\sin B = \frac{\sqrt{5}}{2}$

24. $\tan\theta = -7.249$

25. If θ is a quadrantal angle, then what are the possible values of $\sin\theta$?

You may choose to challenge yourself w/ problems #6-11 but I won't have any like these on the exam.

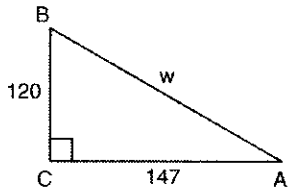
CHAPTER 2, FORM A
TRIGONOMETRY

NAME _____
DATE _____

For Problems 1-10, do not use a calculator.

1. Write sin 89° in terms of its cofunction. **1.** _____

2. Find csc A, sec A, and cot A for the figure below. **2.** cos A: _____
sec A: _____
cot A: _____



Solve each equation. Assume that all angles are acute angles.

3. $\sec(z) = \csc(z + 42°)$ **3.** _____

4. $\tan(3B + 10°) = \cot(B + 9°)$ **4.** _____

5. Which of the following has the same absolute value as cot 315° 13′? **5.** _____

a. cot 115° 13′ **b.** cot 44° 47′
c. cot 45° 13′ **d.** None of these

Evaluate each expression. Give exact values. Rationalize denominators when applicable.

6. cot 120° **6.** _____

7. $3\sin^2 210° + \tan 150°$ **7.** _____

8. $4(\csc 60°)(\sin 300°) - \tan^2 240°$ **8.** _____

Answer *true* or *false* for each statement.

9. $\tan 41° < \tan 26°$ **9.** _____

10. $\sin 240° = 2 \sin 30° \cos 120°$ **10.** _____