

**Review #1 for Quarterly – Quarter 3 Addendum**

SHOW ALL WORK on SEPARATE sheet of paper. Solve the following problems. Unless otherwise specified, round **final** answers to the nearest **tenth**.

**Section 6.1**

19. Find the **number** of triangles with the given information – do **not** solve the triangles.
- i)  $A = 42^\circ$ ,  $a = 5$ ,  $b = 7$
  - ii)  $A = 173^\circ$ ,  $a = 9$ ,  $b = 9.1$
  - iii)  $R = 73^\circ$ ,  $r = 8$ ,  $t = 8$
20. Given triangle ABC with  $A = 41^\circ$ ,  $B = 72^\circ$ , and  $a = 15$ , find  $c$ . Round **final** answers to the nearest **hundredth**.
21. Given triangle ABC with  $B = 56^\circ$ ,  $a = 98$ , and  $b = 85$ , solve the triangle. Round **final** answers to the nearest **hundredth**.
22. Given triangle ABC with  $A = 71^\circ$ ,  $b = 10$ , and  $c = 19$ , find the area of the triangle. Round **final** answers to the nearest **hundredth**.
23. From fire tower A, a fire with a bearing of  $N 78^\circ E$  is sighted. The same fire is sighted from fire tower B at a bearing of  $N 51^\circ W$ . Tower B is 70 miles due east of tower A. What is the distance from tower A to the fire?

**Review #2 for Quarterly – Quarter 3 Addendum****Chapter 6: [Answers on Back]**

1. Solve each triangle using the Law of Sines. Round all answers to the nearest thousandth.
  - a.  $A = 40^\circ$ ,  $B = 12^\circ$ ,  $b = 100$
  - b.  $C = 150^\circ$ ,  $a = 5$ ,  $c = 20$
2. Find the area of the triangle:  $a = 3$ ,  $b = 6$ ,  $C = 130^\circ$
3. Determine the number of solutions to the triangle:  $a = 10$ ,  $b = 35$ ,  $A = 22.5^\circ$

## Chapter 6:

1a.  $C = 128^\circ$   
 $a \approx 309.164$   
 $c \approx 379.012$

b.  $A \approx 7.181^\circ$   
 $B \approx 22.819^\circ$   
 $b \approx 15.513$

2.  $6.894 \text{ units}^2$

3. no solution – not in the range of sine