## <u>Precalculus - Section 6.1C– Law of Sines</u> <u>Practice Problems</u>

For Problems #1 – 10, draw and label a triangle with the given information. Solve for any <u>unknown measures</u>. Round answers to the nearest hundredth.

(Hint: keep in mind... are there 0, 1, or 2 triangles which fit the specified criteria??)

1.) Solve  $\Delta CAT$  given: c = 70,  $A = 40^{\circ}$ ,  $T = 65^{\circ}$ 

2.) Solve  $\triangle ABC$  given: a = 15,  $A = 85^{\circ}$ , b = 25

3.) Solve  $\triangle ABC$  given: a = 26,  $A = 48^{\circ}$ , b = 31

4.) Solve  $\Delta MAT$  given: m = 54,  $M = 72^{\circ}$ ,  $T = 82^{\circ}$ 

5.) Solve  $\triangle OWL$  given:  $O = 96^{\circ}15'$ , o = 10.2, l = 8.3

6.) Solve  $\triangle ABC$  given: a = 5,  $A = 125^{\circ}$ , b = 12

7.) Solve  $\triangle PIG$  given: p = 61.37, g = 72.8,  $G = 18.2^{\circ}$ 

8.) Solve  $\triangle DOG$  given: d = 30,  $O = 100^{\circ}$ ,  $G = 65^{\circ}$ 

9.) Solve  $\triangle JOE$  given: e = 33,  $E = 20^{\circ}$ ,  $J = 10^{\circ}$ 

10.) Solve  $\triangle ABC$  given: a = 2.7,  $A = 32^{\circ}$ , b = 3.8

For Problems #11 – 12, find the <u>area</u> of a triangle with the given measures.

- 11.) Find the area of  $\triangle DEF$  with  $D = 100^{\circ}45'$ , e = 18.2, f = 25.
- 12.) Find the area of  $\triangle QED$  with  $Q = 15.7^{\circ}$ , e = 100, d = 125.