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Law of Sines and Cosines Practice

Ensure to show all your work. Draw a picture to help in solving the problem. Round FINAL answers to the nearest tenth.

1. Solve ΔABC. Let $\angle A = 47°, a = 11, and\ b = 5$.
    a. Use Law of Sines to determine $\angle B$.

    b. Use sum of the triangle's angles theorem to find $\angle C$.

    c. Use Law of Sines to determine side c.

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2. Solve ΔXYZ. Let $\angle Y = 33°, x = 18.5, and\ z = 12$.
   a. Use Law of Cosines to determine side y.

   b. Use Law of Sines to determine $\angle X$.

   c. Use sum of the triangle's angles theorem to find $\angle Z$.

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No steps given. Ensure to number your steps.

3. Solve ΔKLM. Let $\angle M = 122°, \angle L = 25°, and\ k = 97.$

4. Solve ΔGAP. Let $g = 3, a = 4, and\ p = 5.$

Hint: Find angle P first by Law of Cosines

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5.

SOCCER Carlos and Adam are playing soccer. Carlos is standing 40 feet from one post of the goal and 50 feet from the other post. Adam is standing 30 feet from one post of the goal and 22 feet from the other post. If the goal is 24 feet wide, which player has a greater angle to make a shot on goal?