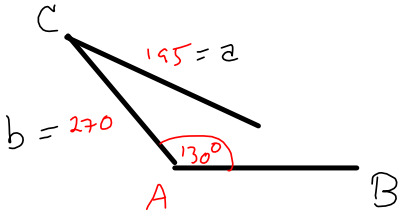
5. –/3 points LarTrig9 3.1.026.MI.

Use the Law of Sines to solve (if possible) the triangle. If two solutions exist, find both. Round your answers to two decimal places

$A = 130°$, $a = 195$, $b = 270$ (If a triangle is not possible, enter IMPOSSIBLE in each corresponding answer blank.)



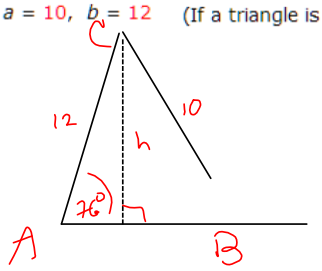
Impossible! A is obtuse, so a is longest side. But $a < b$ ≠

No sol'n

6. –/3 points LarTrig9 3.1.027.

Use the Law of Sines to solve (if possible) the triangle. If two solutions exist, find both. Round your answers to two decimal place

$A = 76°$, $a = 10$, $b = 12$ (If a triangle is not possible, enter IMPOSSIBLE in each corresponding answer blank.)



$\frac{h}{12} = \sin 76°$

$h = 12 \sin 76°$

≈ 11.64354872

$> 10 = a$

So a can't reach ground!

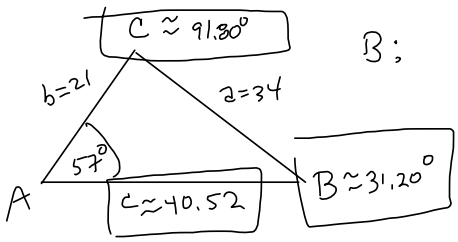
```
12sin(76)
      11.64354872
```

–/3 points LarTrig9 3.1.028.

Use the Law of Sines to solve (if possible) the triangle. If two solutions exist, find both.

$A = 57°,\ a = 34,\ b = 21$

Round your answers to two decimal places. (If not possible, enter IMPOSSIBLE.)



B: $\frac{\sin B}{b} = \frac{\sin A}{a}$

$\sin B = \frac{b \sin A}{a}$

$= \frac{21 \sin 57°}{34} \approx .5180024096 \approx \sin B$

```
21sin(57)/34
      .5180024096
sin⁻¹(Ans)
      31.19835222
```

$\Rightarrow B \approx 31.19835222$

$\Rightarrow 180° - B - A$

$180° - 31.19835222° - 57°$

$\approx 91.80164778°$

```
21sin(57)/34
      .5180024096
sin⁻¹(Ans)
      31.19835222
180-Ans-57
      91.80164778
```

$\frac{c}{\sin C} = \frac{a}{\sin 57°}$

$c = \frac{a \sin C}{\sin 57°} \approx \frac{34 \sin(91.80164778°)}{\sin 57°}$

$\approx 40.5203111 \approx \boxed{40.52 \approx c}$

```
sin⁻¹(Ans)
      31.19835222
180-Ans-57
      91.80164778
34sin(Ans)/sin(5
7)
      40.5203111
```