

10. Previous Answers LarTrig10 1.8.011. (3882273)

Saturday, Sep 17,

Im stuggling to find the angle A and B. I did arcsin(56.08/58.16) For angle A and arccos for angle. B

Reply Move to Answered

Report C

Solve the right triangle shown in the figure for all unknown sides and angles. Round your answers to two decimal places.

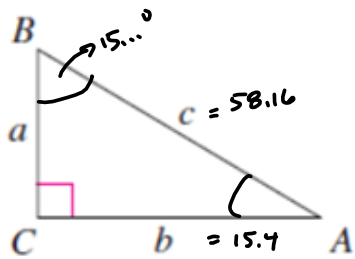
$b = 15.40, c = 58.16$

A = 74.63 ✗

B = 15.37 ✗

C = 90 ✓

a = 56.08 ✓



$$\cos A = \frac{15.4}{58.16} \approx .26478680$$

$$\Rightarrow \cos^{-1}(\cos A) = A \approx$$

In QI, so this is true.

```

cos^-1(Ans)
.26478680
1.30281351
15.4/58.16
cos^-1(Ans)
.26478680
74.64571549
    
```

Radians? Want degrees. $\cos(1.3^\circ)$ is a lot closer to 1 than .26.

$\approx 74.65^\circ$

```

1.30281351
15.4/58.16
cos^-1(Ans)
.26478680
74.64571549
Ans-90
-15.35428451
    
```

$$\approx 15.35428451^\circ$$

```

74.64571549
Ans-90
-15.35428451
-Ans
15.35428451
58.16*cos(Ans)
56.08409400
    
```

Seems Big!

But $A = 75^\circ$

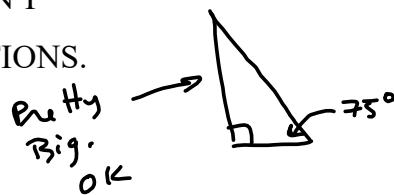
$$\frac{a}{c} = \sin A \text{ or } \cos B$$

$$\cos B = \frac{a}{c}$$

$$\Rightarrow a = c \cos B$$

$$\approx 58.16 \cos(15.35^\circ)$$

USE UNROUNDED NUMBERS IF YOU'RE USING THEM TO MAKE SUBSEQUENT CALCULATIONS. NEVER ROUND UNTIL YOU GET TO THE FINAL ANSWER. DON'T USE ROUNDED FIGURES IN CALCULATIONS.



11. Previous Answers LarTrig10 1.8.502.XP. (3882221)

Saturday, Sep 17, 4:29PM

I have no idea what to do with the minute sign

Reply

Quick Notes

second is 1/3600th of a degree.

62 + 18/60 degrees is what you have.

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Solve the right triangle shown in the figure for all unknown sides and angles. Round your answers to two decimal places.

$$B = 62^\circ 18', \quad a = 139.5$$

$$A = 28 \times \text{ } 27.7^\circ$$

$$C = 90 \checkmark \text{ } 90^\circ$$

$$b = (\text{No Response}) \text{ } 265.71$$

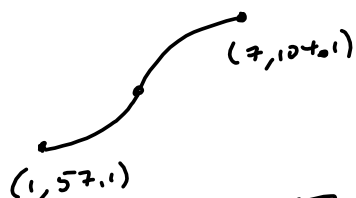
$$c = (\text{No Response}) \text{ } 300.10$$

$$B = 62^\circ + \left(\frac{18}{60}\right)^\circ = 62.3^\circ \text{ exactly}$$

See Page 5 for fitting cosine to temp data.

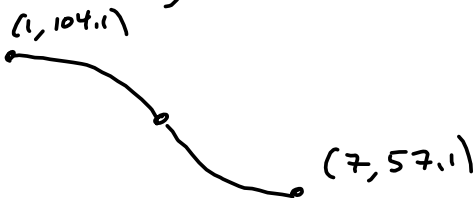
<https://harryzaims.com/122/122-fall-22/notes/220907-1-5.pdf>

All we need is $+164$: $(7, 104.1)$ & LOW : $(1, 57.1)$



We built $23.5 \cos\left(\frac{\pi}{6}(t-1)\right) + 80.6$ in notes.

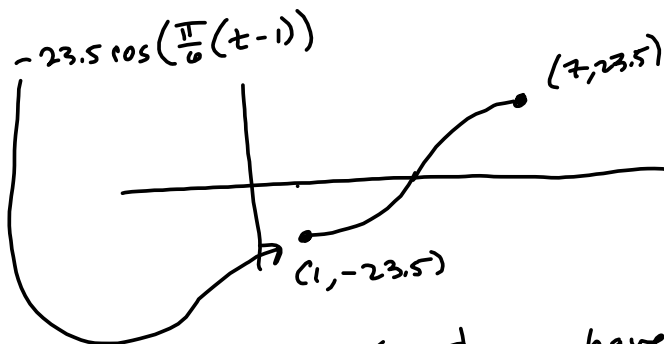
I got "clever" (always a mistake!) and flipped it, because I had a mirage? No. I took my guy:



Flip it!

Still doesn't do it. OR DOES IT?

$$-23.5 \cos\left(\frac{\pi}{6}(t-1)\right) + 80.6$$



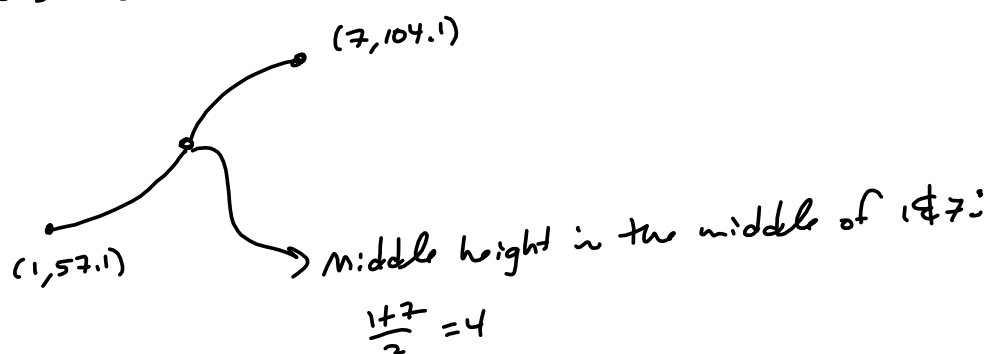
Now, move it up 80.6 & you have what we want.

MUCH EASIER & MORE LOGICAL:

HIGH @ $t=7$, so $\cos\left(\frac{\pi}{6}(t-7)\right)$ achieves that!

Do it with sine:

$$23.5 \sin\left(\frac{\pi}{6}(t-1)\right) + 80.6 \quad \text{where to start?}$$



$$23.5 \sin\left(\frac{\pi}{6}(t-4)\right) + 80.6$$

$$13.8, 78.6$$

$$(1, 13.8), (7, 78.6)$$

$$\frac{13.8 + 78.6}{2} =$$

$$52.4 \cos\left(\frac{\pi}{6}(t - 7)\right) + 64.8$$

```

92.40000000
Ans/2
46.20000000
78.6-13.8
64.80000000
Ans/2
32.40000000

```

— MIDLINE,
IDIOS

— AMP

Using cosine.