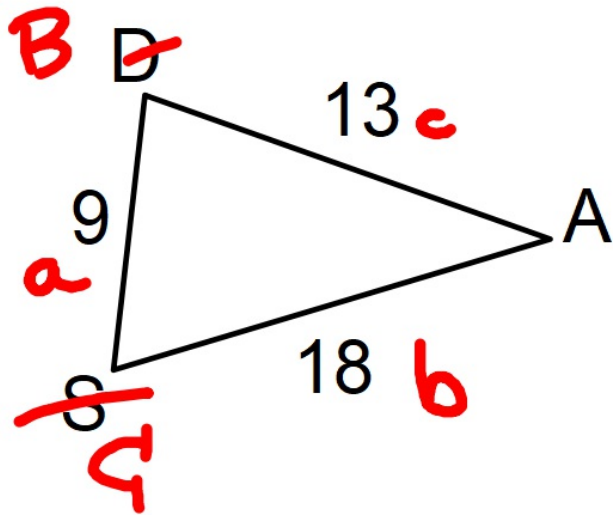


Good afternoon: warm up
 Find the measure of $\angle S$



$$\cos^{-1}(.726) = C$$

$$\boxed{43^\circ \approx C}$$

$$c^2 = b^2 + a^2 - 2ab \cos C$$

$$13^2 = 18^2 + 9^2 - 2(9)(18)\cos C$$

$$169 = 405 - 324\cos C$$

$$\begin{array}{r} -236 = -324\cos C \\ \hline -324 \qquad \qquad -324 \\ \hline 0.726 = \cos C \end{array}$$

Test delayed again: Wednesday 1/30

Visibly random grouping

Answers to Law of Sines and Cosines

1) 46

5) 37.1°

9) 30°

13) 11

2) 32

6) 34°

10) 17°

14) 10

3) 23

7) 28.2°

11) 34°

15) 27.9

4) 10

8) 16.1°

12) 75°

16) 24

Test Part 1

- SRT-C6a: SohCahToa Trig (includes inverse trig) **old**
- SRT-C7a: Sine and Cosines of Complements **new**
- SRT-C8a: Applying SohCahToa Trig **new**

Test Part 2

- SRT-B4: Similarity Within Right Triangles **old**
- SRT-C8b: Law of Sines/Cosines **new**

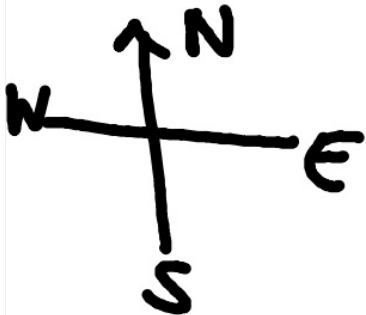
Reviewing SohCahToa trig (NO law of sines/cosines)

Use your real name please!



Applying Law of Sines/Cosines

A ship sails east to west parallel to a shoreline with two landmarks spaced 500 feet apart. From the western marker, the ship can be spotted N 4° E bearing, and from the east marker the ship can be spotted N 52° W. How far is the ship from each marker, to the nearest foot?



How to read bearings:

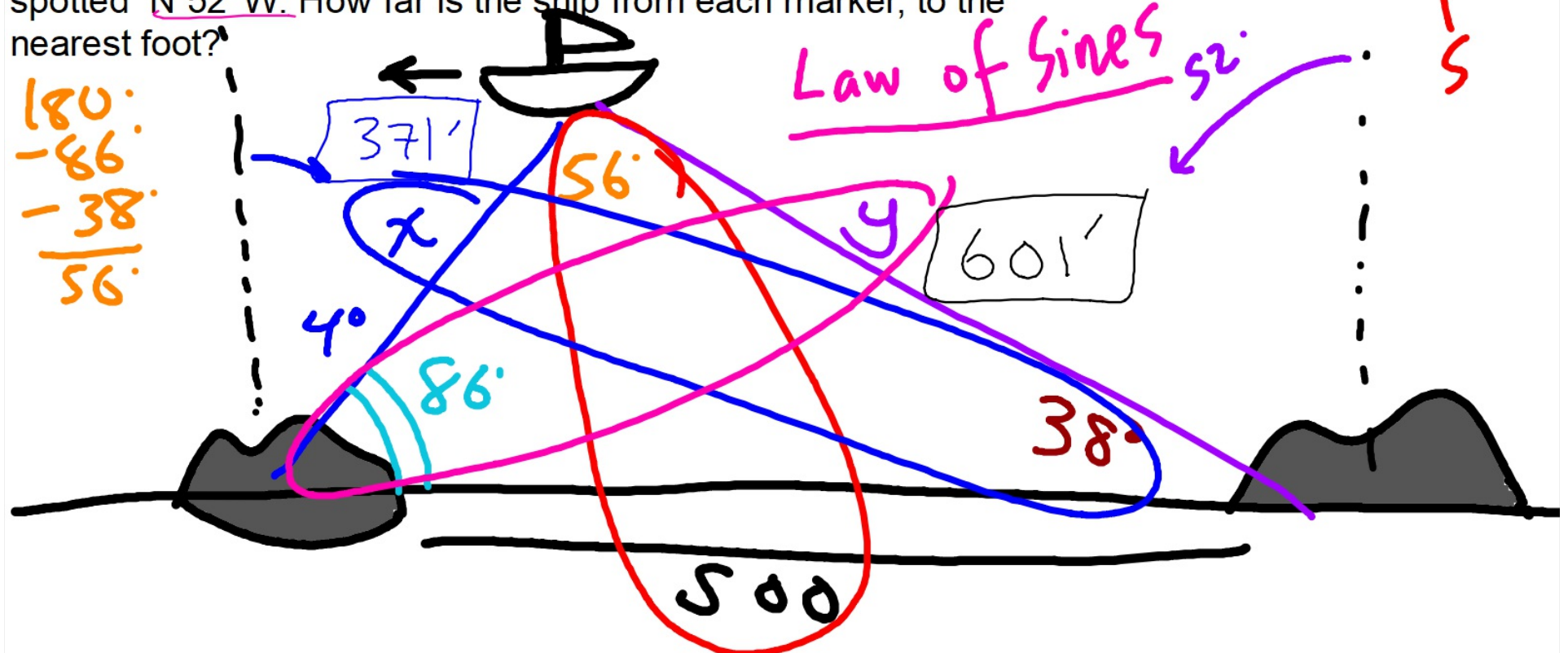
N##°E

S##°W

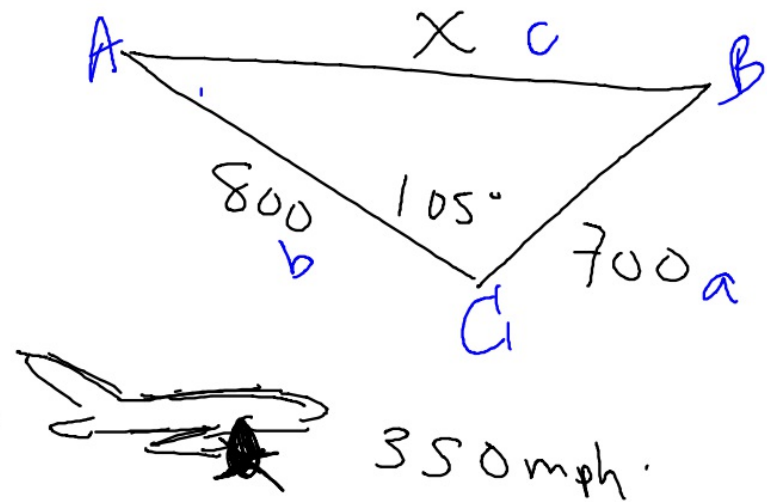
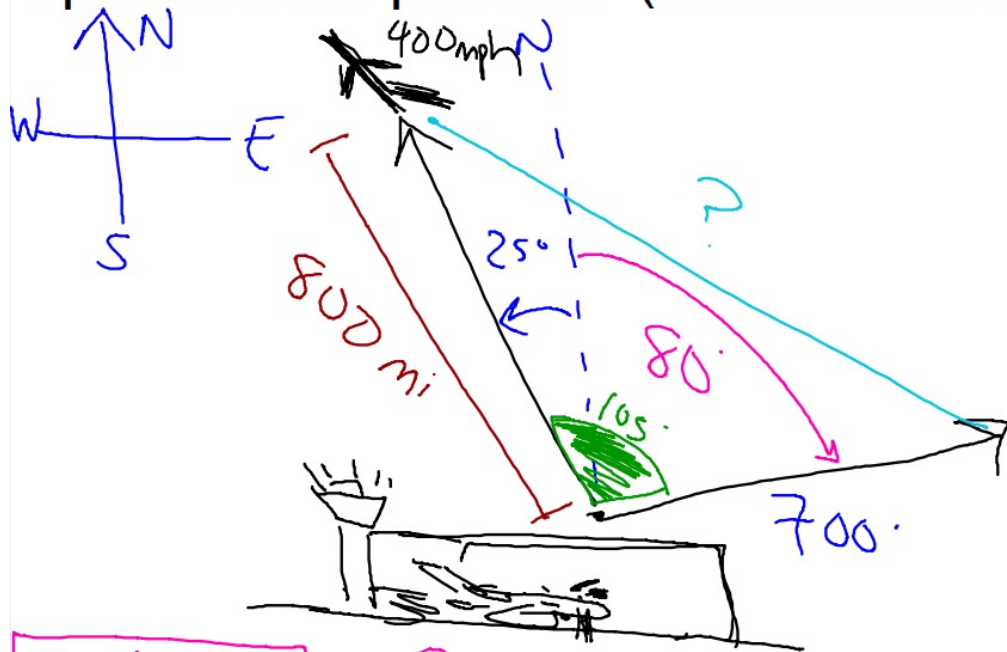
Three digit bearings

assume 0° is true north
rotate CW

A ship sails east to west parallel to a shoreline with two landmarks spaced 500 feet apart. From the western marker, the ship can be spotted $N 4^\circ E$ bearing, and from the east marker the ship can be spotted $N 52^\circ W$. How far is the ship from each marker, to the nearest foot?



Two airplanes depart an airport at noon, one flying 400mph and the other flying 350mph. The faster plane is flying a bearing of N25°W, while the slower plane is flying N80°E. At 2pm, how far apart are the planes? (to the nearest mile)

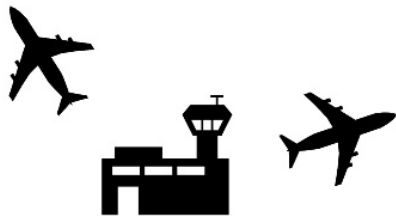


$$C = 1191 \text{ mi} \quad C^2 = 800^2 + 700^2 - 2(800)(700)\cos(105)$$

$$\leftarrow C^2 = 1419877 \dots$$

$$\sqrt{\quad} \quad \sqrt{\quad}$$

Two airplanes depart an airport at noon, one flying 400mph and the other flying 350mph. The faster plane is flying a bearing of $N25^\circ W$, while the slower plane is flying $N80^\circ E$. At 2pm, how far apart are the planes? (to the nearest mile)



What's on Monday's test (Part 1)

SRT-C6a: SohCahToa Trig (includes inverse trig)	old
SRT-C7a: Sine and Cosines of Complements	new
SRT-C8a: Applying SohCahToa Trig	new

What's on Tuesday's Test (Part 2)

SRT-B4: Similarity Within Right Triangles	old
SRT-C8b: Law of Sines/Cosines	new

Homework:

**finish the practice test, study for Wednesday's assessment
(you will get a new practice on Monday to prep for 2nd half)**