

Good afternoon:

no warm up, assessments are being passed back
look them over with your neighbors and make corrections

retakes available in any DS except Weds
or in Tuesday tutoring 4-5p

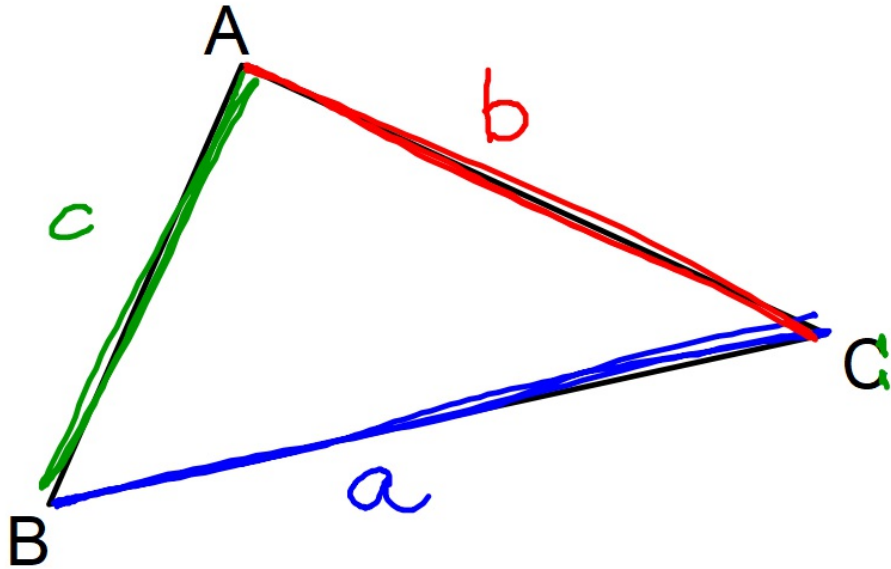
Q3 grades finalized on March 15th 4pm

Next 2 assessment dates (tentative)

Monday Mar 5

Monday Mar 12 (1B) or Tuesday Mar 13 (A-day)

The Law of Sines

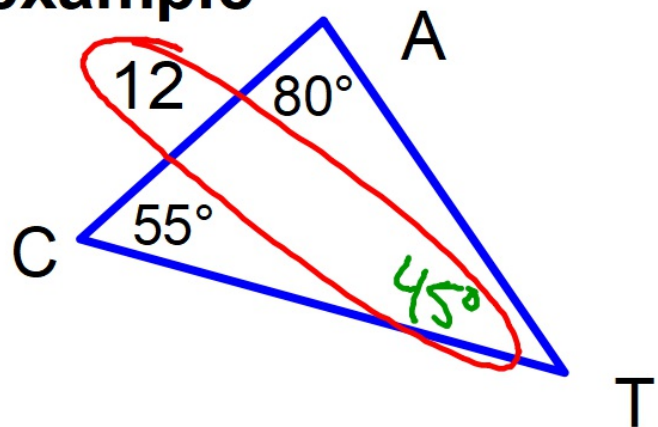


$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

When to use it:

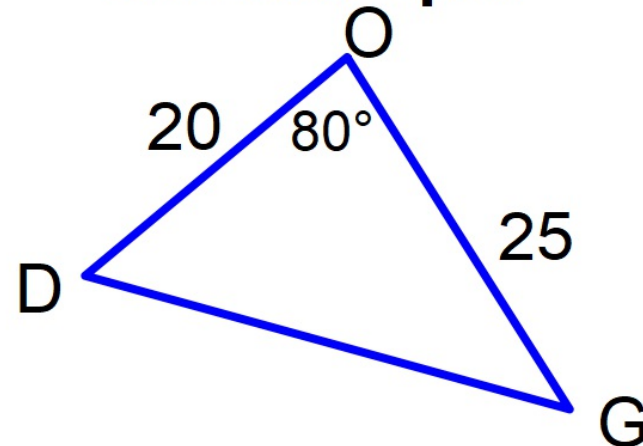
- looking for sides/angles of non-right triangle
- must have a 'complete pair' of angle and opposite side known to use

example

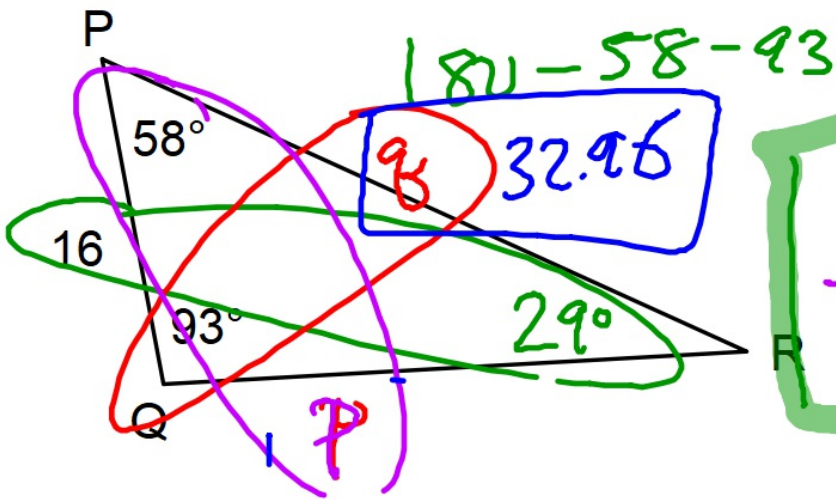


Use the law of sines

non example



Cannot use law of sines
(must use law of cosines)



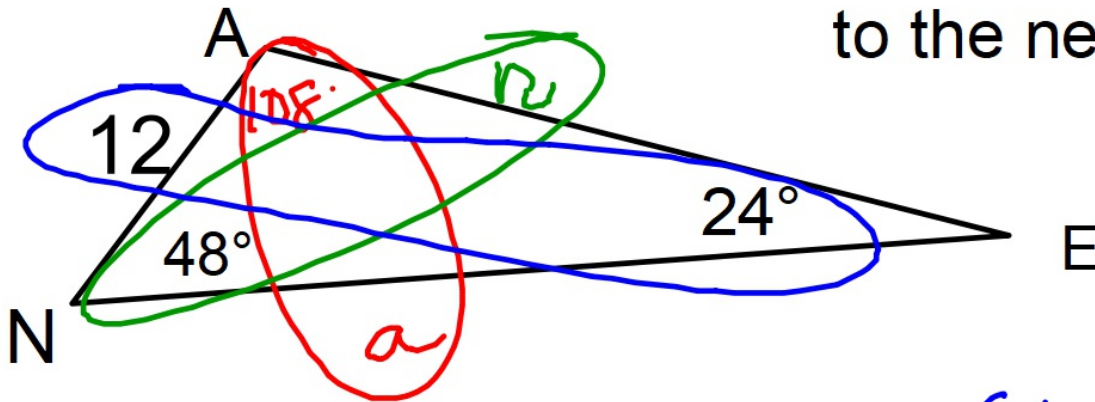
Find all missing sides and angles to the nearest hundredth.

$$\frac{\sin 58}{q} = \frac{\sin 29}{16} \times \frac{\sin 93}{q}$$

$$\frac{16 \cdot \sin 93}{\sin 29} = \frac{q \cdot \cancel{\sin 29}}{\cancel{\sin 29}}$$

$$\underline{32.96 = q}$$

Find all missing sides and angles to the nearest hundredth.



$$\frac{\sin 108}{a} = \frac{\sin 24}{12} = \frac{\sin 48}{n}$$

$$12 \sin 108 = a \cdot \sin 24$$

$$\frac{12 \sin 108}{\sin 24} = a$$

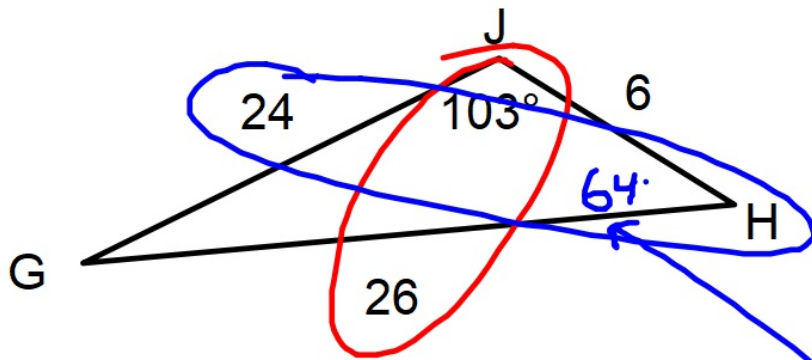
$$\underline{28.06 = a}$$

$$n \cdot \sin 24 = 12 \cdot \sin 48$$

$$\frac{12 \sin 48}{\sin 24}$$

$$\underline{21.93 = n}$$

Find all missing sides and angles to the nearest hundredth.



$$\frac{\sin 103}{26} = \frac{\sin H}{24}$$

$$\frac{24 \sin 103}{26} = \frac{26 \sin H}{26}$$

INVERT

$$0.899 = \sin H$$

$$\sin^{-1}(0.899) = H = 64^\circ$$

$\angle G?$

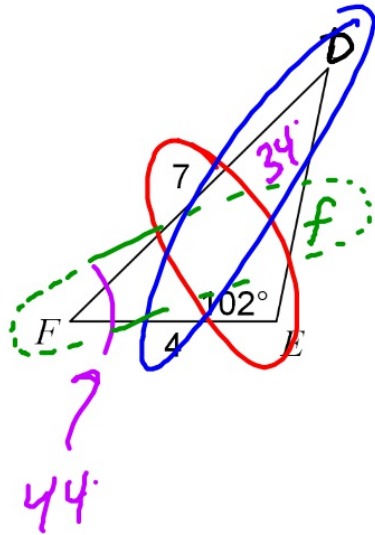
well, all Δ 's
Sum to 180;

So

$$180 - 103 - 64$$

$$= 13^\circ$$

Find all missing sides and angles to the nearest hundredth.



$$\frac{\sin 102^\circ}{7} \neq \frac{\sin D}{4}$$

$$4 \sin 102^\circ = 7 \cdot \sin D$$

$$\frac{4 \sin 102^\circ}{7} = \sin D$$

$$0.559 = \sin D$$

$$D = \sin^{-1}(0.559)$$

$$\underline{D = 34^\circ}$$

$$180^\circ - 102^\circ - 34^\circ$$

$$= 44^\circ = \angle F$$

Now do Law of Sines again

$$\frac{\sin 102^\circ}{7} = \frac{\sin 44^\circ}{f}$$

$$f \cdot \sin 102^\circ = 7 \cdot \sin 44^\circ$$

$$f = \frac{7 \cdot \sin 44^\circ}{\sin 102^\circ}$$

$$\underline{f = 4.97}$$

HW

handout #1-10