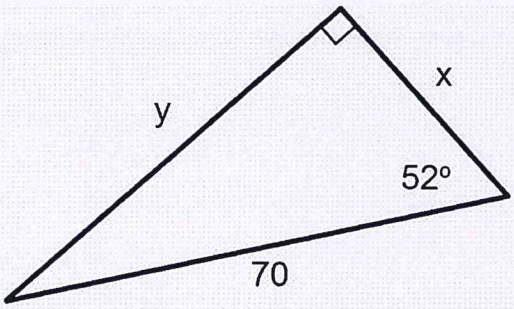
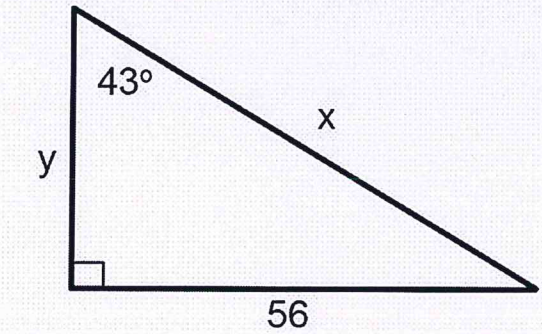
Bellwork Alg 2 Thursday, March 14, 2019

Find the value of x and y in each triangle to the nearest hundredth.

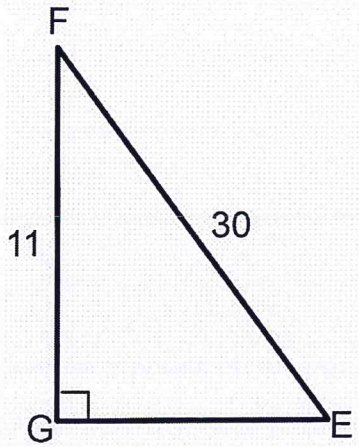
1.



2.



3. Find the missing angles in this triangle. Round to the nearest tenth of a degree.



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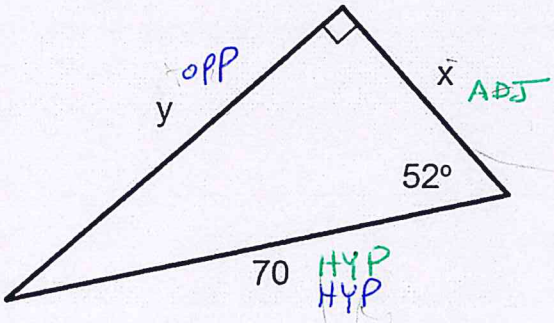
ANSWERS

Find the value of x and y in each triangle to the nearest hundredth.

1.



SOH CAH TOA

For X use Cos

$\cos 52^\circ = \frac{x}{70}$

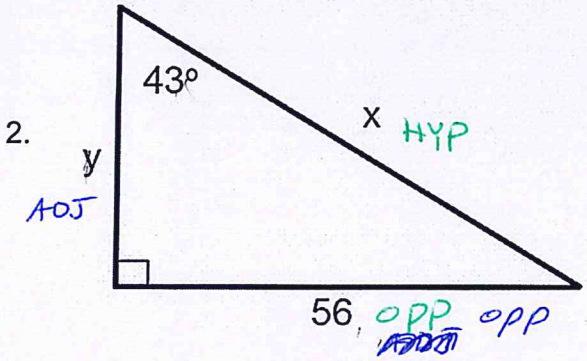
$x = 43.10$

For y use Sin

$\sin 52^\circ = \frac{y}{70}$

$y = 55.16$

2.



SOH CAH TOA

For x use Sin

$\sin 43^\circ = \frac{56}{x}$

make a proportion and cross multiply

$x = 82.11$

For y use Tan

$\tan 43^\circ = \frac{56}{y}$

make a proportion and cross multiply

$y = 60.05$

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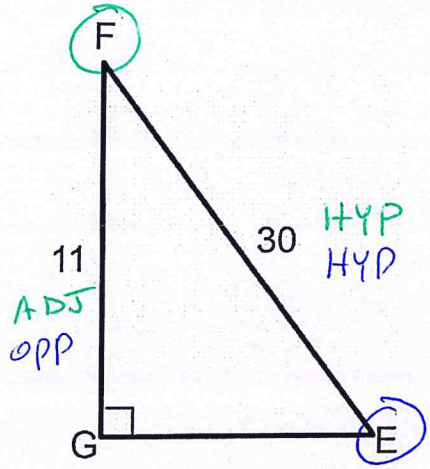
3. Find the missing angles in this triangle. Round to the nearest tenth of a degree.



SOH CAH TOA

For $\angle F$ use Cos

$\cos F = \frac{11}{30}$ → undo cos using its inverse

$\angle F = \cos^{-1}\left(\frac{11}{30}\right)$

$\angle F = 68.5^\circ$

For $\angle E$:

option 1

$\angle E = 90 - \angle F$

$\angle E = 90 - 68.5$

$\angle E = 21.5^\circ$

option 2 use inverse. Sin

$\sin E = \frac{11}{30}$

$\angle E = \sin^{-1}\left(\frac{11}{30}\right)$

$\angle E = 21.5^\circ$