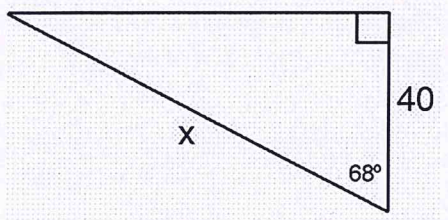
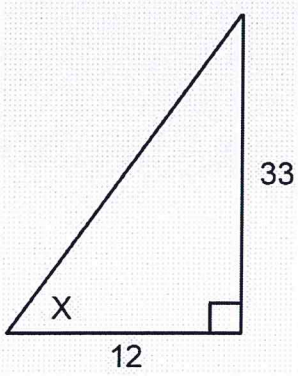
Bellwork Geo Monday, March 23, 2020

1. Find the value of x to the nearest hundredth.



2. Find the value of x to the nearest hundredth.



3. A support wire is attached to the top of a cell phone tower and to an anchor in the ground. The wire makes a $62°$ angle with the ground. If the anchor is 40 feet from the cell phone tower find the length of the support wire to the nearest tenth of a foot.

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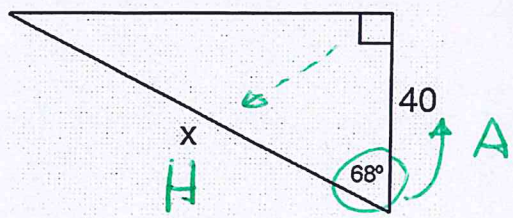
Answers

1. Find the value of x to the nearest hundredth.



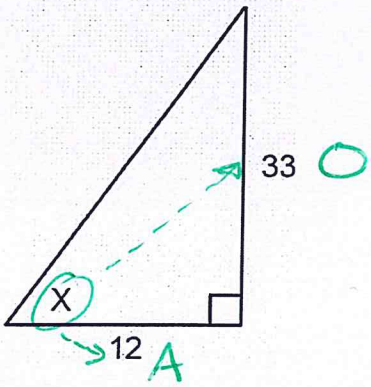
SOHCAHTOA

$\cos 68° = \frac{40}{x}$

$x = \frac{(40)(1)}{\cos 68°} = \frac{40}{\cos 68°}$

$x = 106.78$

2. Find the value of x to the nearest hundredth.



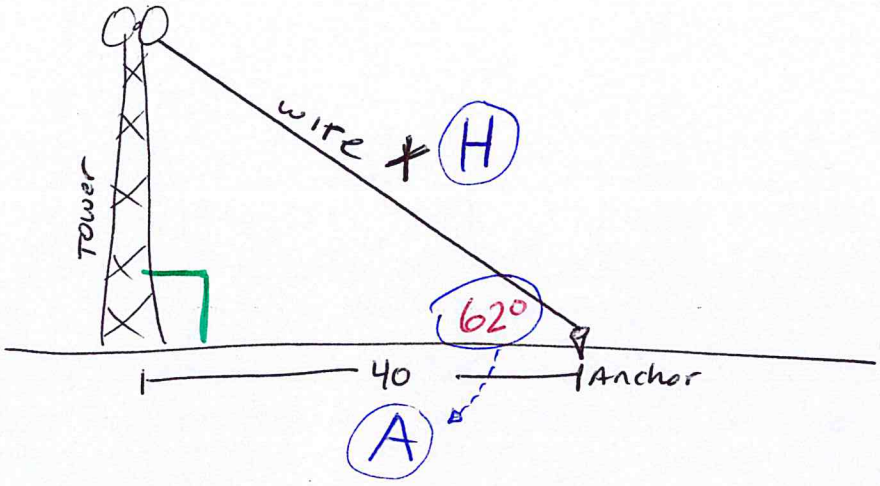
SOHCAHTOA

$\tan x = 33/12$

$x = \tan^{-1}(33/12)$

$x = 70.02°$

3. A support wire is attached to the top of a cell phone tower and to an anchor in the ground. The wire makes a 62° angle with the ground. If the anchor is 40 feet from the cell phone tower find the length of the support wire to the nearest tenth of a foot.



SOHCAHTOA

$\cos 62° = \frac{40}{x}$

$x = \frac{(40)(1)}{\cos 62°} = \frac{40}{\cos 62°}$

$x = 85.2$ ft