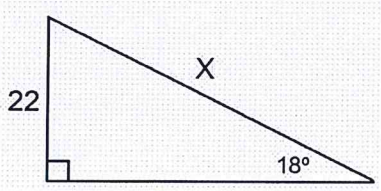
Bellwork Alg 2 Thursday, March 19, 2020

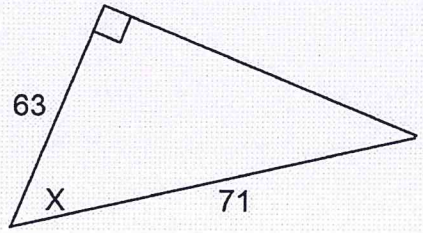
1. Use all three properties of logarithms to expand this as much as possible. $\ln\left(\frac{\sqrt{C}}{B^4D^6}\right)$

Round answers for the remaining problems to the nearest hundredth.

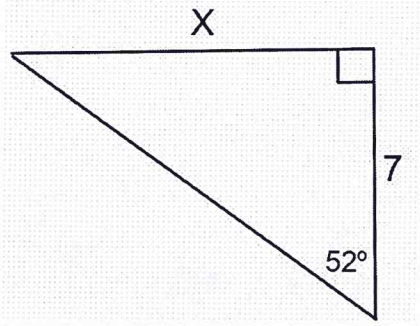
2. Find the value of x.



3. Find the value of x.



4. Find the value of x.



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Answers

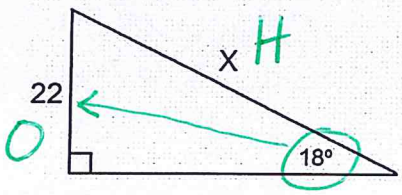
1. Use all three properties of logarithms to expand this as much as possible. $\ln\left(\frac{\sqrt{C}}{B^4D^6}\right)$

$$\ln\left(\frac{C^{1/2}}{B^4D^6}\right) = \ln C^{1/2} - \ln B^4 - \ln D^6$$

$$= \frac{1}{2}\ln C - 4\ln B - 6\ln D$$

Round answers for the remaining problems to the nearest hundredth.

2. Find the value of x.



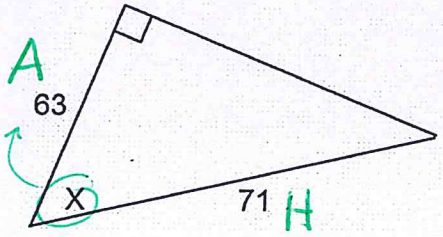
SOHCAH TOA

$\frac{\sin 18°}{1} = \frac{22}{x}$

$x = \frac{(22)(1)}{\sin 18°} = \frac{22}{\sin 18°}$

$x = 71.19$

3. Find the value of x.



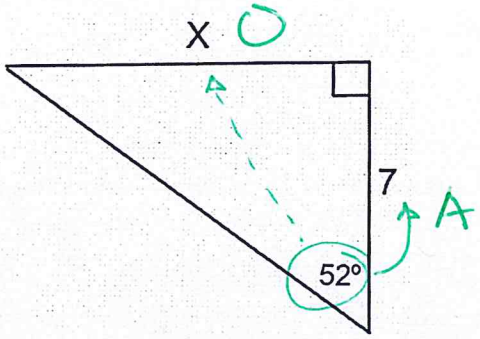
SOHCAH TOA

$\cos X = \frac{63}{71}$

$\angle X = \cos^{-1}\left(\frac{63}{71}\right)$

$\angle X = 27.46°$

4. Find the value of x.



SOHCAH TOA

$7 \cdot \tan 52° = \frac{x}{7} \cdot 7$

$x = 7\tan 52°$

$x = 8.96$