Trig Work Sheet 50 pts

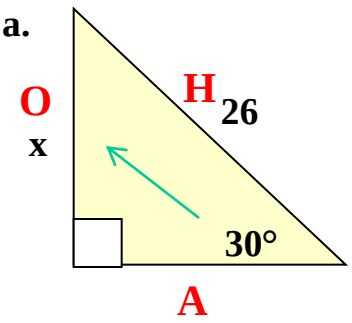
Name: _____

Steps to Solve Trig Problems:

1) **Label the sides of the triangle based on given angle (H - hypotenuse, O – side opposite angle, A – side adjacent angle)**
2) **Use trig definitions to figure out which trig function to use (O&H → sin; A&H → cos; O&A → tan)**
3) **Write out equation using definition**
4) **Solve for x (remember if x is an angle to use inverse trig function $\sin^{-1}$ or $\cos^{-1}$ or $\tan^{-1}$)**

Examples:

a.



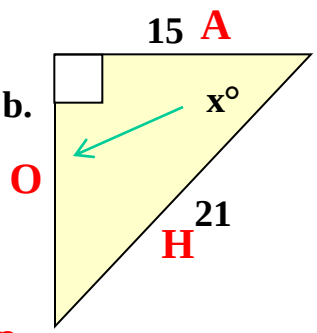
O&H use sin

sin 30° = x/26
26 sin 30° = x

Or

side opp 30° = ½ hyp
x = ½ (26) = 13

b.



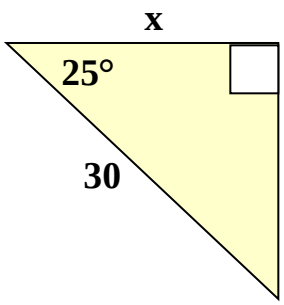
A&H use cos

cos x° = 15/21
x is an angle so use $\cos^{-1}$

x = $\cos^{-1}$ (15/21)

Find values for x in each problem; ok to leave in fraction form

1.



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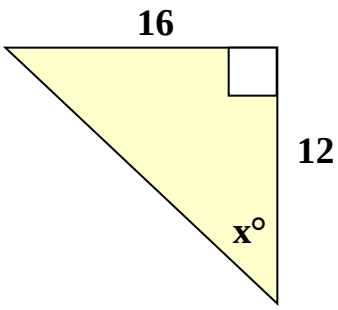

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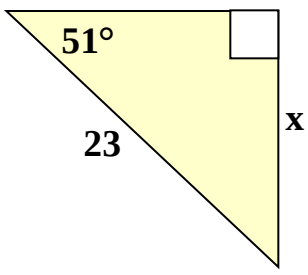

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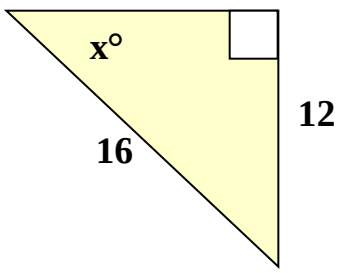

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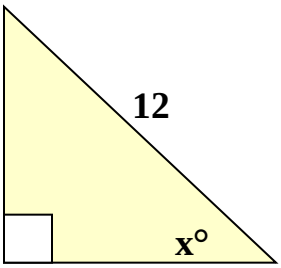

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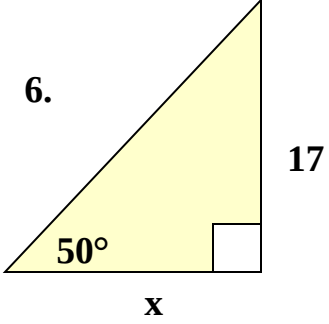

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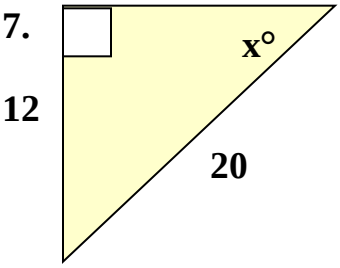

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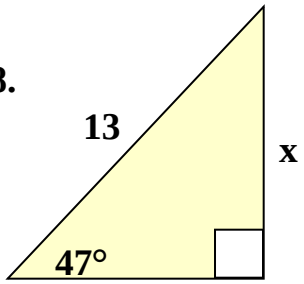

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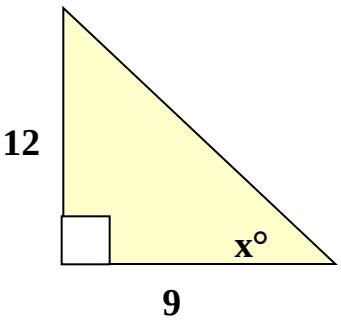

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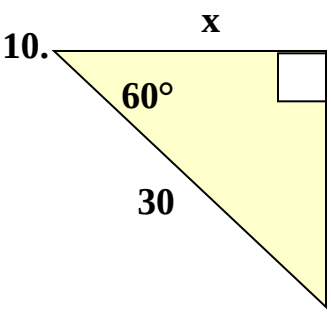

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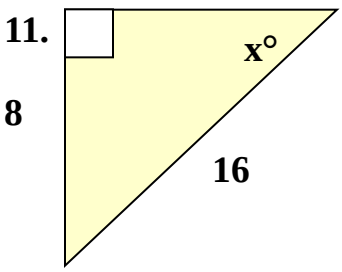

12.