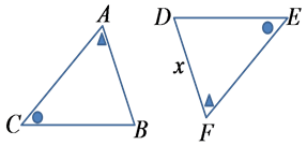
Name:_____ Date:_____

Math 9 HW Section 7.4 Similar Triangles:

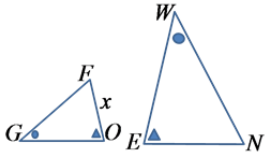
1. Given that each pair of similar triangles, indicate which side in the second triangle corresponds with side "x"?

a) $\Delta ABC \sim \Delta FDE$



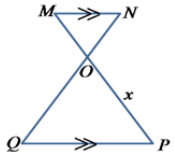
$x =$

b) $\Delta FOG \sim \Delta NEW$



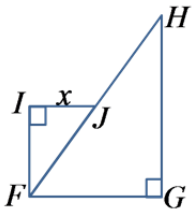
$x =$

c) $\Delta MON \sim \Delta POQ$



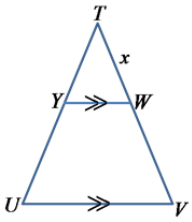
$x =$

d) $\Delta FIJ \sim \Delta HGF$



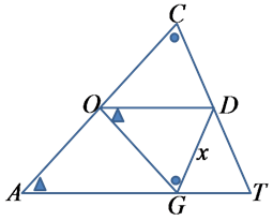
$x =$

e) $\Delta TYW \sim \Delta TUV$



$x =$

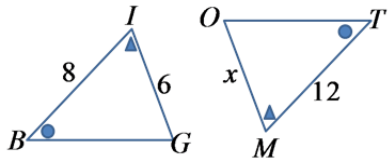
f) Challenge: $\Delta TAC \sim \Delta DOG$



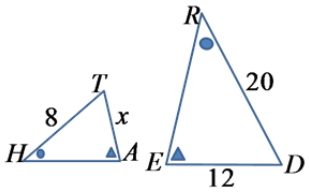
$x =$

2. Given that following pairs of similar triangles, find the length of the missing side "x".

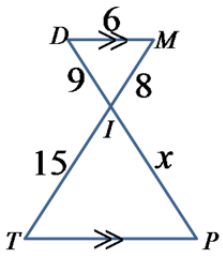
a)



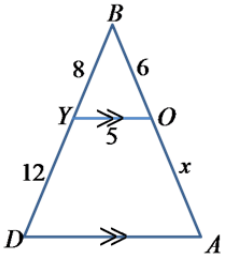
b)



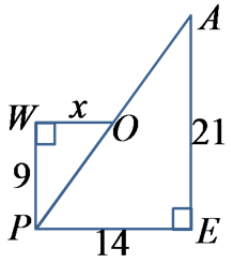
c)



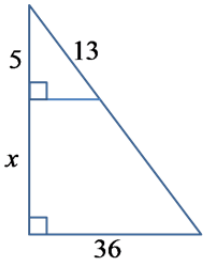
d)



e)



f)



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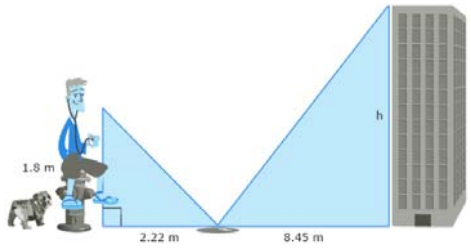
3. Indicate whether if the following statements are true OR false: Explain why.

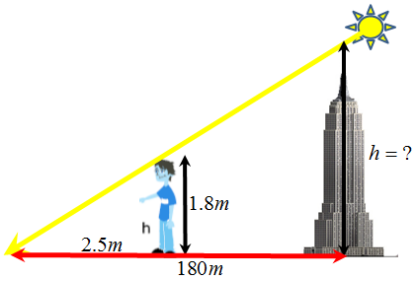
i) If two triangles are similar they have the same shape	TRUE	FALSE
ii) If two triangles are similar, they have the same size	TRUE	FALSE
iii) All equilateral triangles are similar	TRUE	FALSE
iv) All isosceles triangles are similar	TRUE	FALSE
v) All isosceles right triangles are similar	TRUE	FALSE
vi) All right triangles are similar	TRUE	FALSE
vii) All squares are similar	TRUE	FALSE

4. Naomi wants to calculate the height of a tree. She is 1.2 m tall and casts a shadow of 2.75 m. At the same time, the shadow of the tree is 10.5 m long. How tall is the tree?

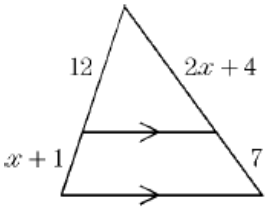
5. Given the following diagram with the two similar triangles, what is the height of the building?

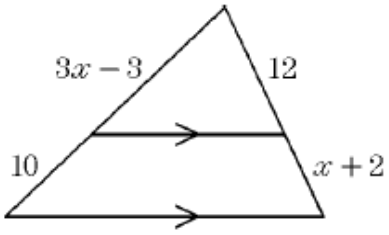


6. Jason is 1.8m tall and the sun casts a shadow of 2.5m. A building nearby has a shadow 180meters long. Using similar triangles, how high is the building?



7. Solve for the value of "x"





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