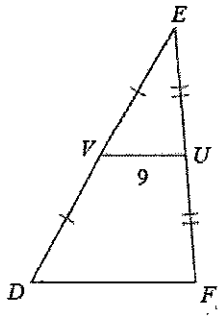
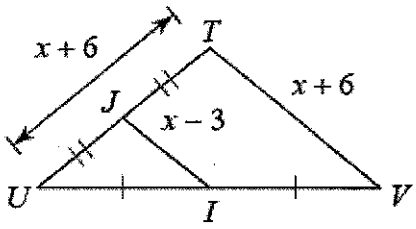
Name _____ Geometry Unit 3 Test Review 2

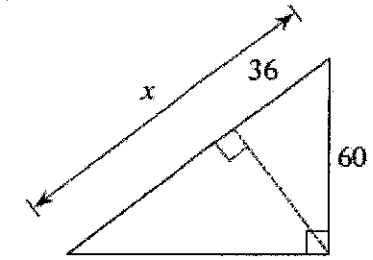
1. Find DF



2. Find X.

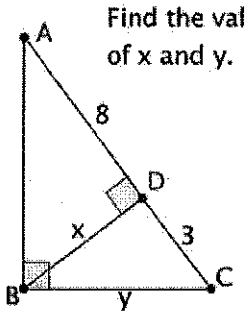


3.

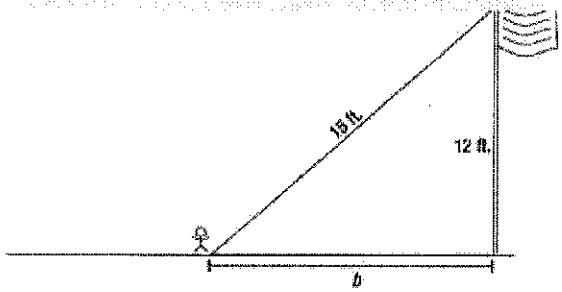


4

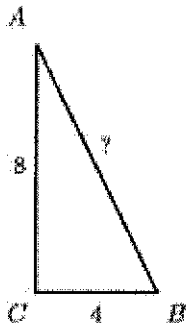
Find the values of x and y.



5. Find b.

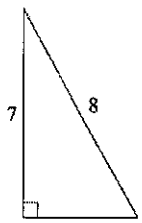


6. In the right triangle shown, $AC = 8$ and $BC = 4$. What is AB?



Find the AREA of the triangles.

7.



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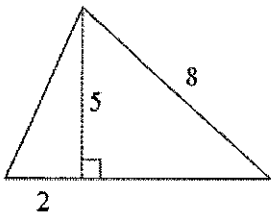

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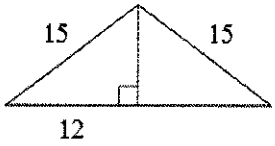
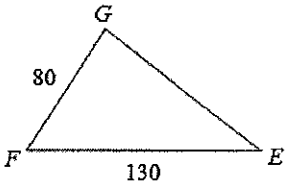
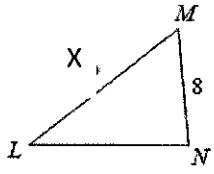


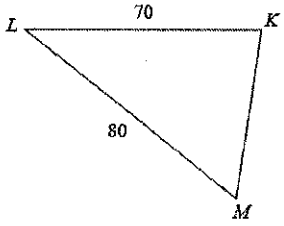
The following triangles are similar. Find the value of x.

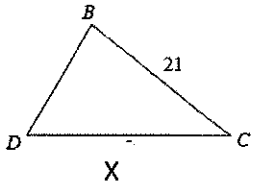
10



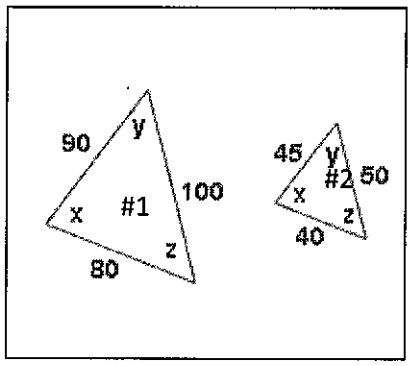


11.

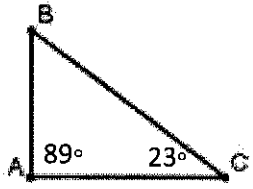


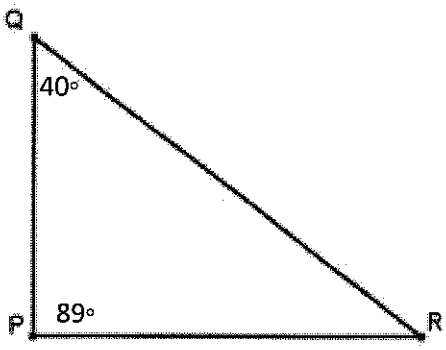


12. Find the similarity ratio: of Δ#1 to Δ#2



13. Are these triangles similar? Why or why not?





14. (G.C.3 – 3.3) Fill in the blanks with the following vocabulary terms: orthocenter, incenter, centroid, circumcenter

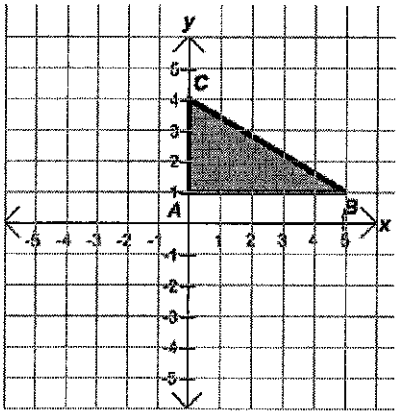
A. The medians of a triangle are concurrent at the _____.

B. The angle bisectors of a triangle are concurrent at the _____.

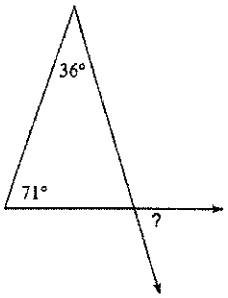
C. The perpendicular bisectors of a triangle are concurrent at the _____.

D. The altitudes of a triangle are concurrent at the _____.

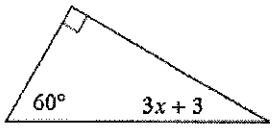
15. (G.C.3 – 5.3) Find the center of the circle that you can circumscribe about the triangle (Find the circumcenter!)



16. (G.CO.10 -3.3) Find the measure of the missing angle:



17. (G.CO.10 – 3.3) Solve for x:



18. (G.CO.7)

When triangles are congruent, their sides AND angles are congruent. Which 3 transformations use rigid motions to produce congruent triangles?

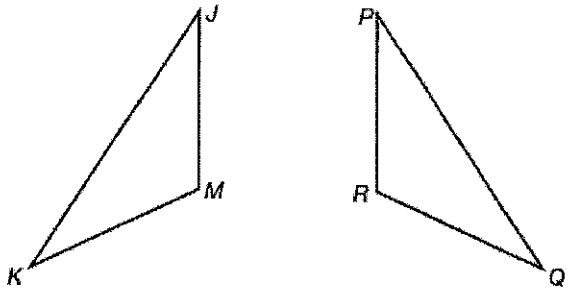
_____

_____

_____

When triangles are similar, angles are congruent and sides are proportional. Which transformation produces similar triangles? _____

19. (G.CO.8)



ΔJKM was reflected to produce ΔPQR Decide if each statement would model SSS, SAS, ASA, AAS, or not possible.

A. The triangles are congruent because $\overline{KM}$ is taken to $\overline{QR}$, $\overline{JM}$ is taken to $\overline{PR}$.

_____

B. The triangles are congruent because $\overline{KM}$ is taken to $\overline{QR}$, $\overline{JM}$ is taken to $\overline{PR}$ and ∠M is taken to ∠R _____

C. The triangles are congruent because $\overline{KM}$ is taken to $\overline{QR}$, $\overline{JM}$ is taken to $\overline{PR}$, and $\overline{KJ}$ is taken to $\overline{QP}$ _____

D. The triangles are congruent because $\overline{KM}$ is taken to $\overline{QR}$, $\overline{JM}$ is taken to $\overline{PR}$ and ∠J is taken to ∠P _____

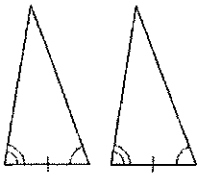
20. A student has to perform two transformations on a triangle to try and produce a congruent triangle.

A. Rotate 180° and then reflect over y-axis. Are the triangles congruent? Why?

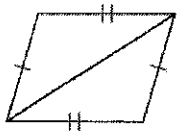
B. Dilate by a scale factor of ½ and then translate 3 left. Are the triangles congruent? Why?

21. (G.SRT.5) State SSS, SAS, ASA, AAS, HL, or not possible

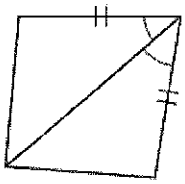
A.



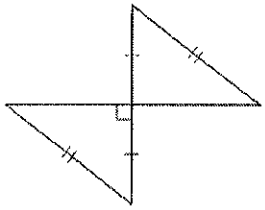
B.



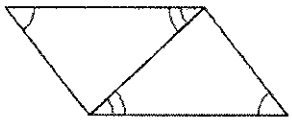
C.



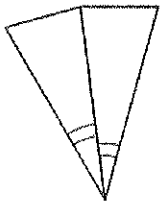
D.



E.



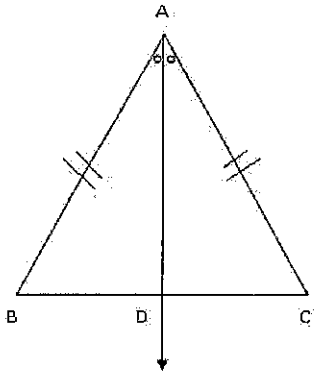
F.



22. (G.CO.10 – 4.5) $\overline{AB}$ = 20, $\overline{BC}$ = 16, m∠B = 48

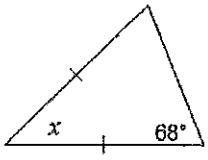
m∠C = _____ m∠BAD= _____ m∠CAD= _____ m∠BAC= _____ m∠BDA= _____

$\overline{AC}$ = _____ $\overline{DC}$ = _____

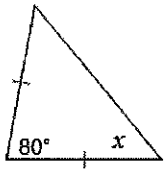


(G.CO.10 – 4.5) Find the missing angle:

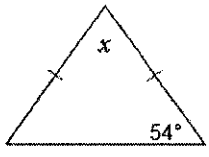
23.



24.



25.



26.