

Day 4: Right Triangle Similarity and Other Properties

Date _____

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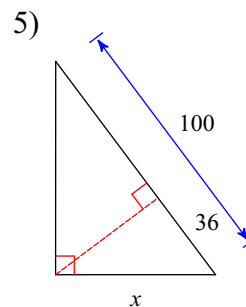
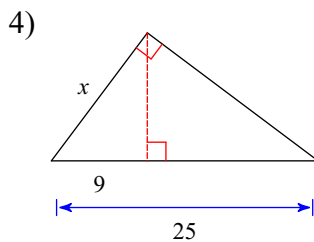
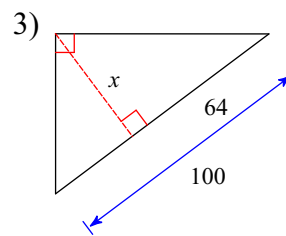
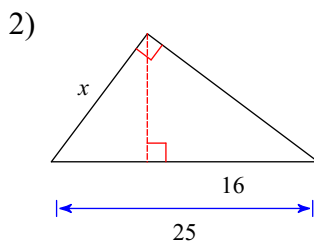
1) Right Triangle Similarity

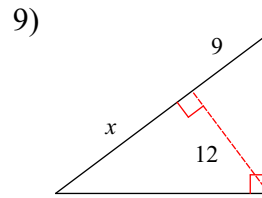
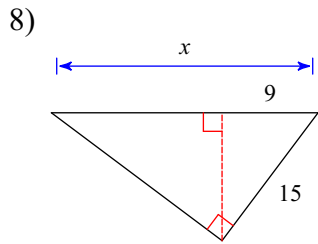
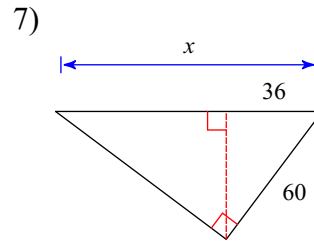
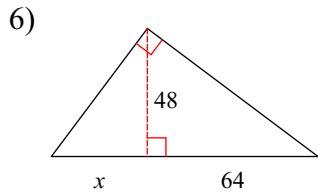
An altitude of any right triangle splits the triangle into similar triangles. We end up with a small right triangle, a medium right triangle, and the original right triangle.

It may be easier to see the corresponding angles and sides if we pull the three triangles apart and draw them side by side.

Like this:

Find the missing length indicated.



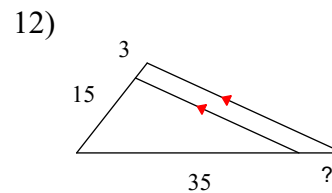
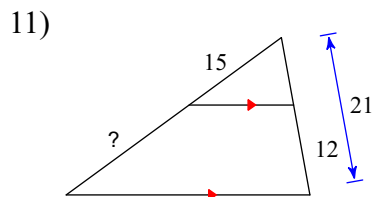


Parallel Line Similarity

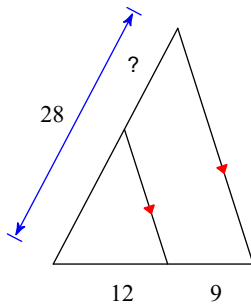
10) A line parallel to one side of a _____ divides the other two _____ . The converse (opposite) is also true.

Like this:

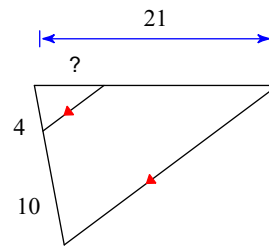
Find the missing length indicated.



13)

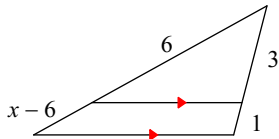


14)

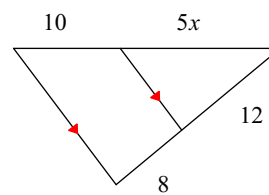


Solve for x .

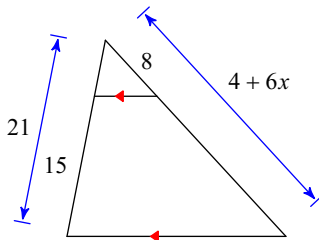
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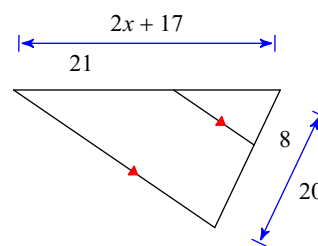
16)



17)



18)



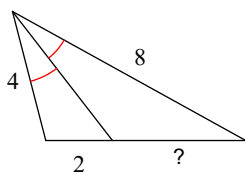
Angle Bisector Similarity

19) If one angle of a triangle is _____, then the angle bisector of the triangle divides the opposite side into two segments that are _____ to the other two sides of the triangle.

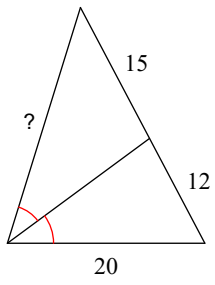
Like this:

Find the missing length indicated.

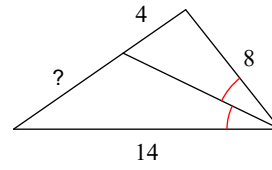
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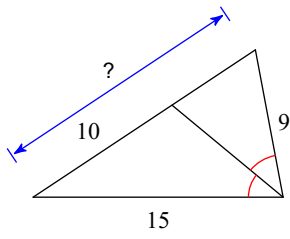
21)



22)

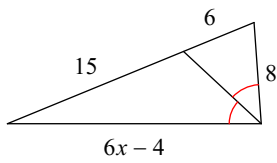


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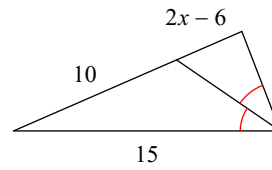


Solve for x .

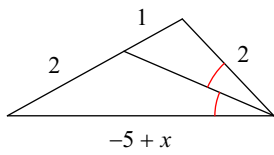
24)



25)



26)



27)

