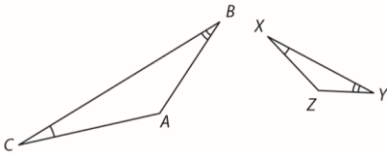


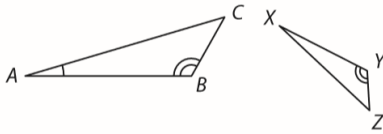
Applying Similarity

Decide whether each pair of triangles is similar. Explain your answer. (AA, SAS, SSS)

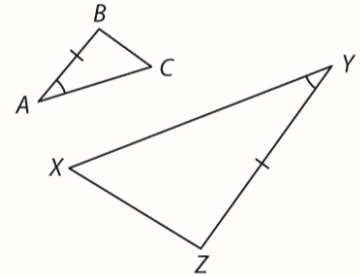
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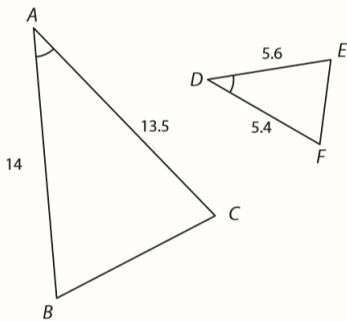
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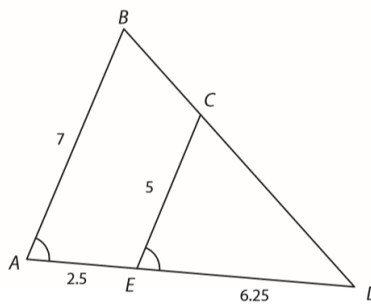
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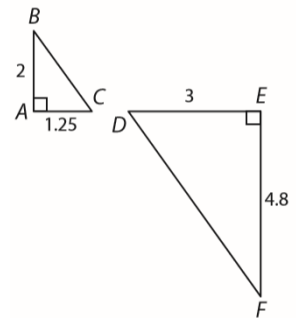
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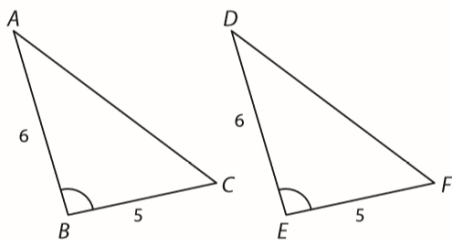
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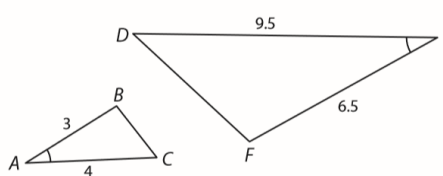
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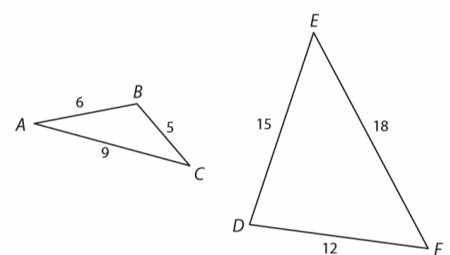
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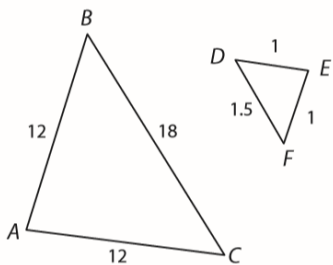
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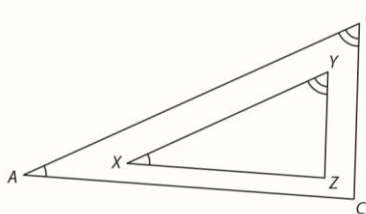
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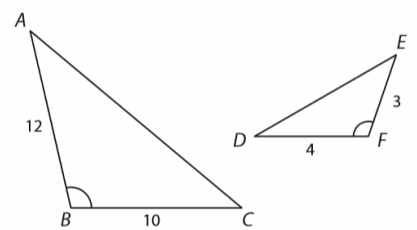
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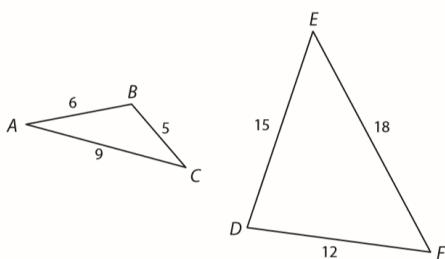
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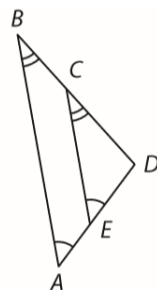
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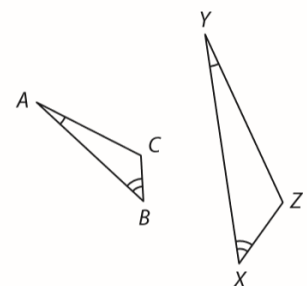
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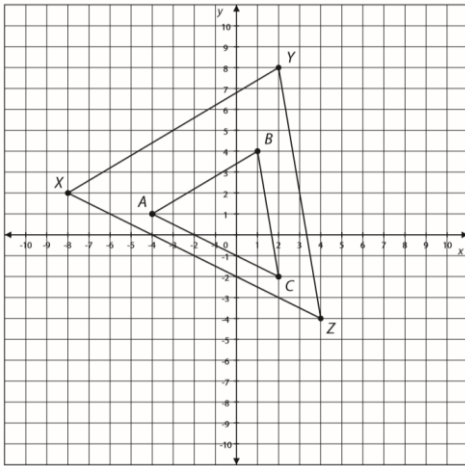
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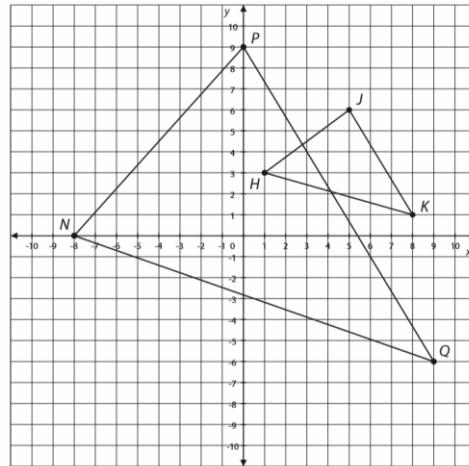
Similarity in the coordinate plane

Use the definition of similarity in terms of similarity transformations to determine whether the two figures are similar. Explain your answer.

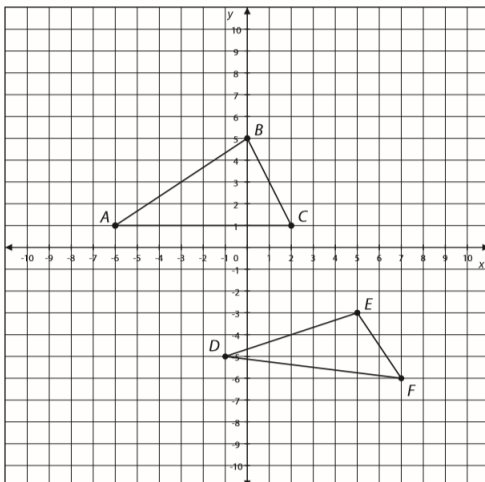
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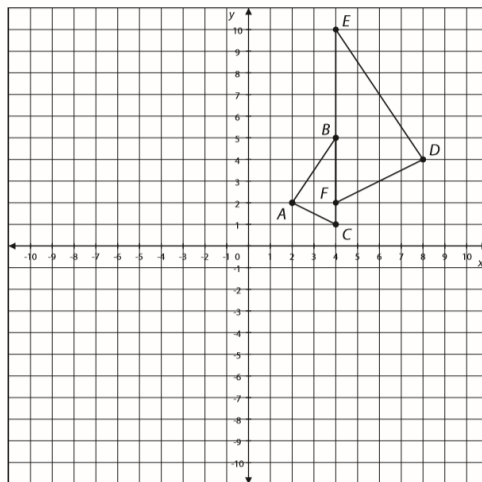
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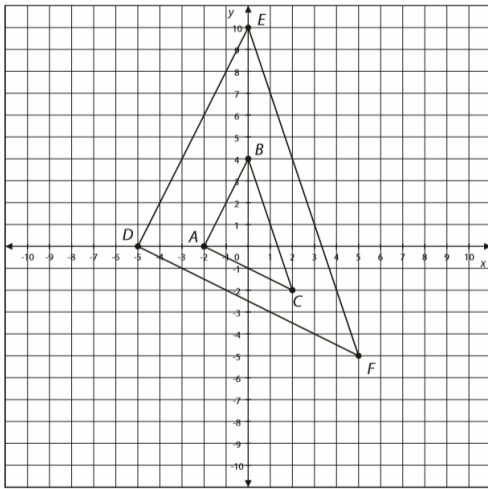
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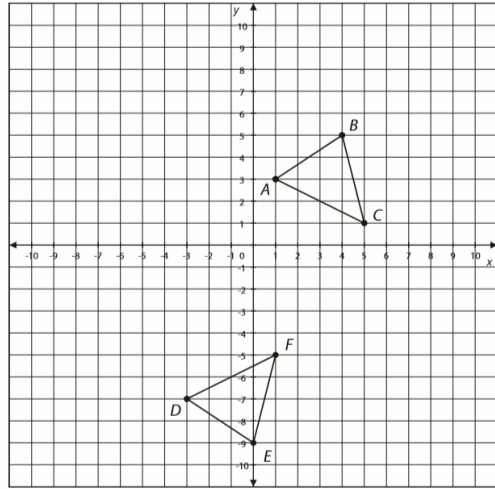
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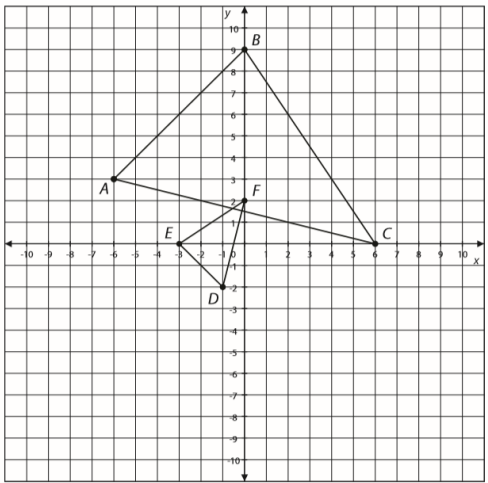
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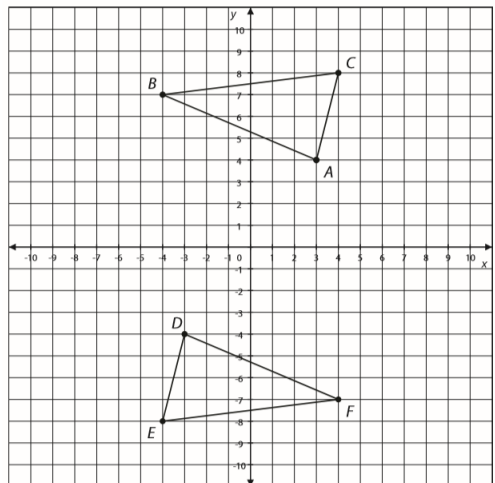
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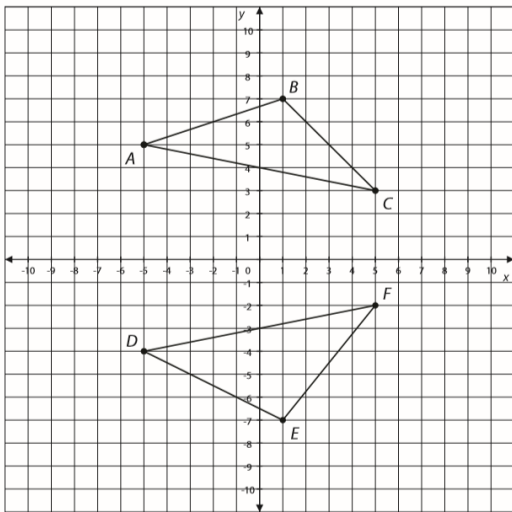
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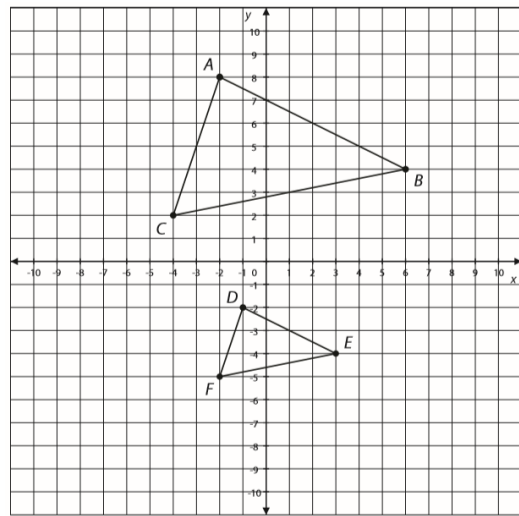
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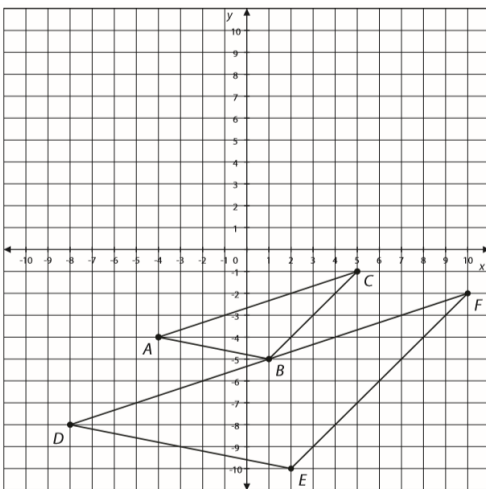
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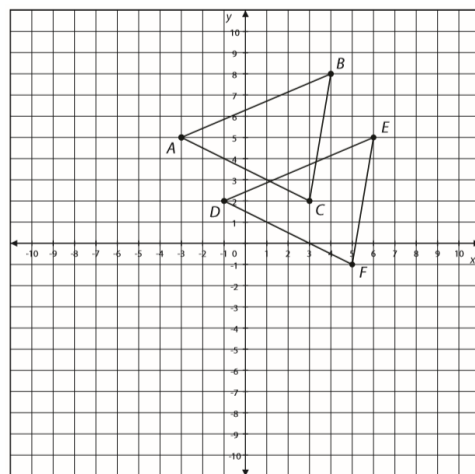
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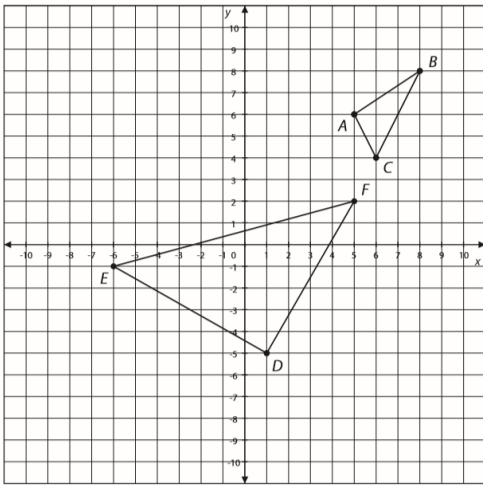
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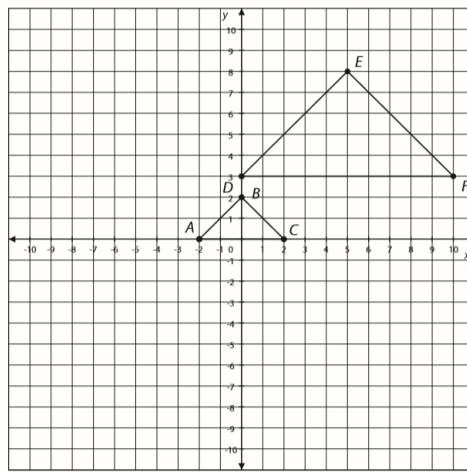
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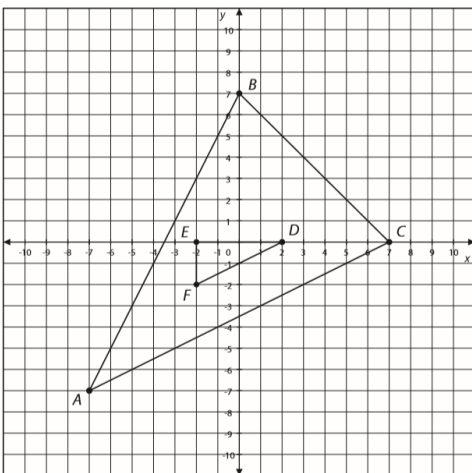
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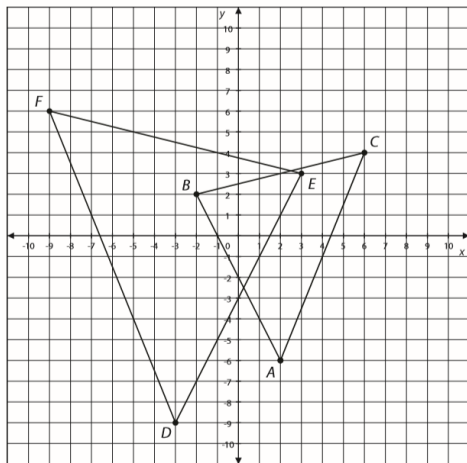
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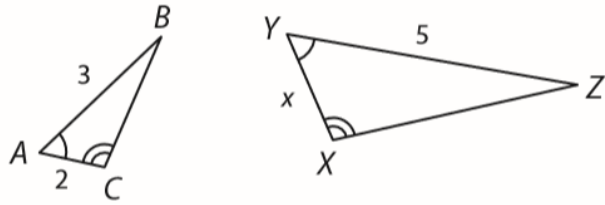
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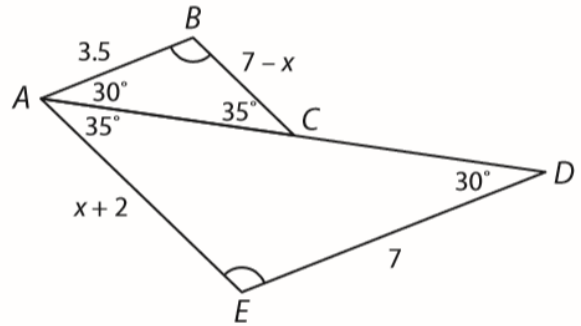
Solving Similar Triangles

Given the triangles are similar, find x and the measures of the indicated sides.

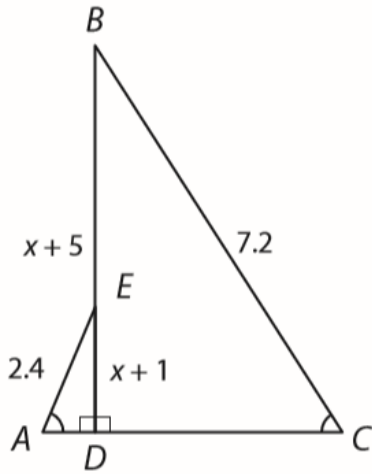
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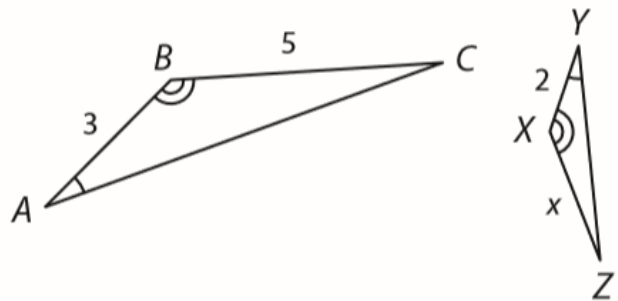
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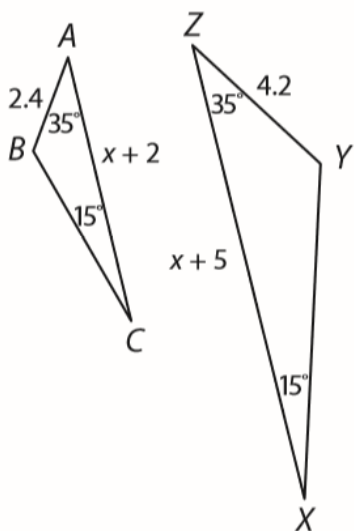
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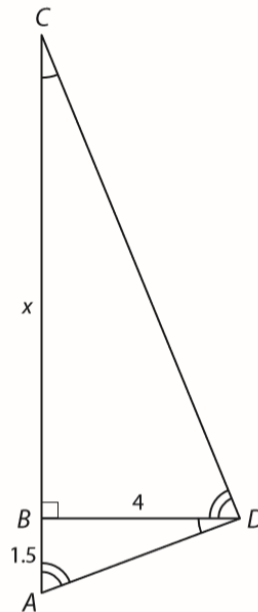
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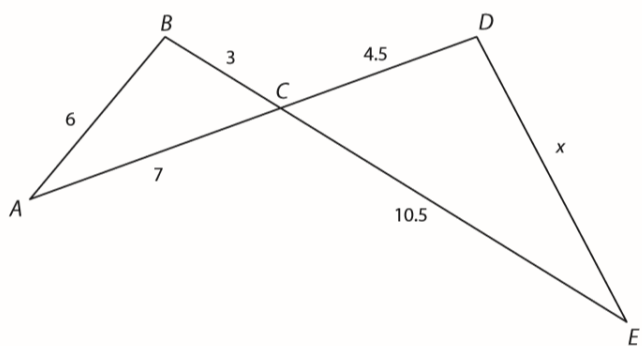
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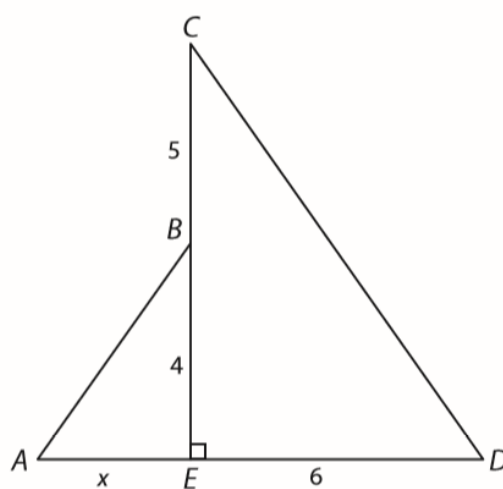
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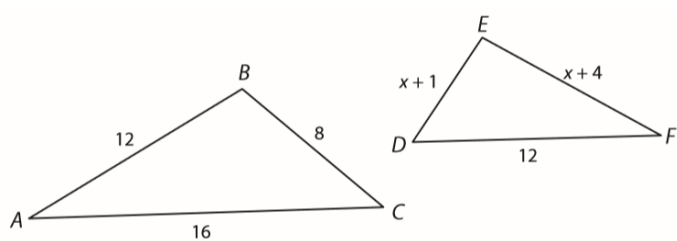
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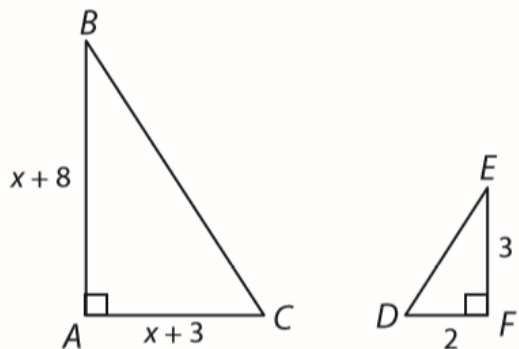
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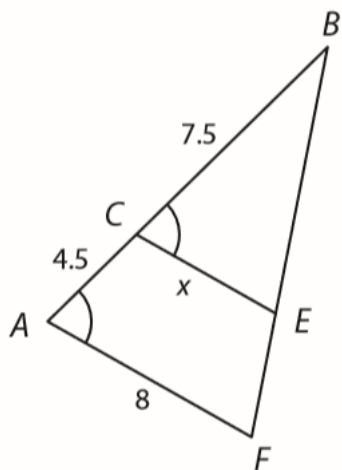
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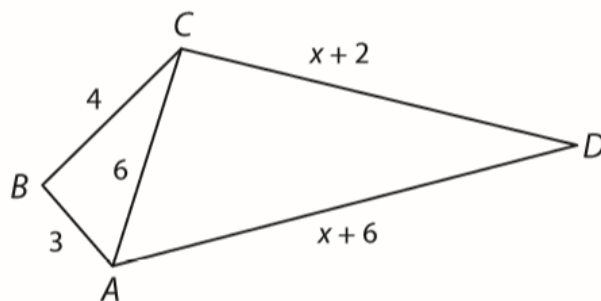
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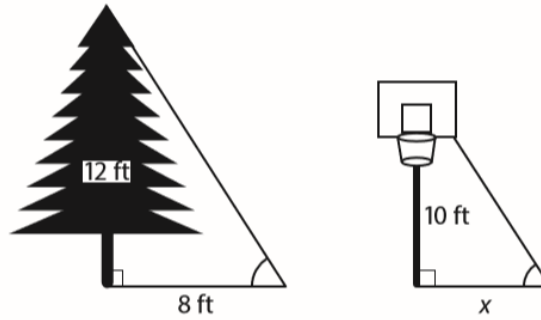


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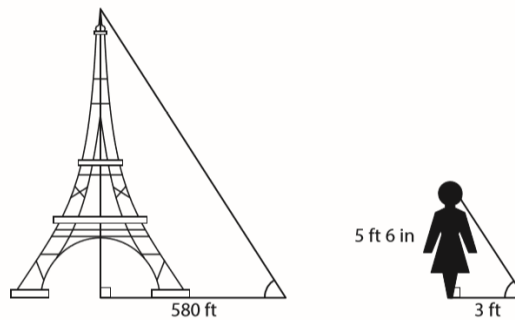


Use similarity to solve each problem.

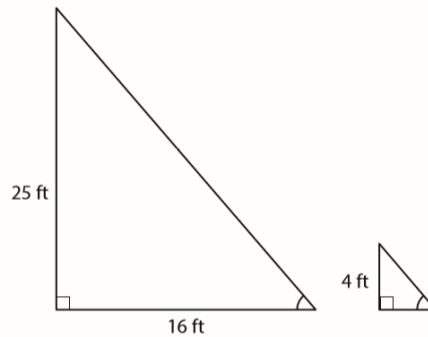
13. At a certain time of day, a tree that is 12 feet tall casts a shadow that is 8 feet long. Find the length of the shadow that is created by a 10-foot-tall basketball hoop at the same time of day.



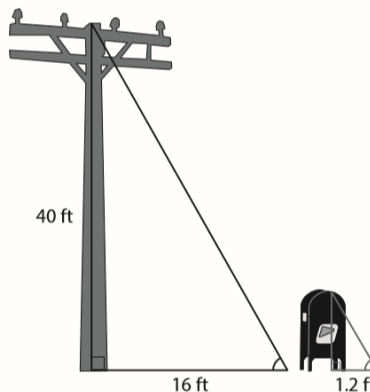
14. Sheila is standing near the Eiffel Tower in Paris, France. The shadow of the monument is 580 feet long, and Sheila's shadow is 3 feet long. If Sheila is 5 feet 6 inches tall, how tall is the monument?



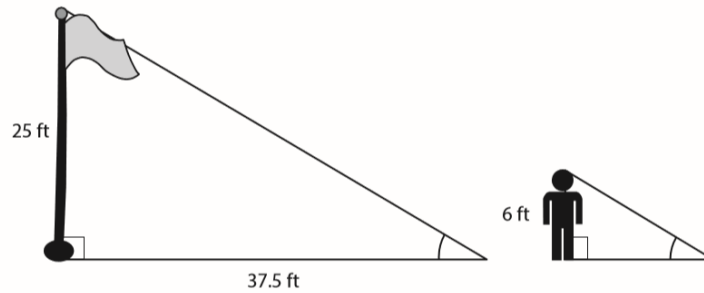
15. A statue that is 25 feet tall casts a shadow that is 16 feet long. A cement post next to the statue is 4 feet tall. Find the length of the cement post's shadow.



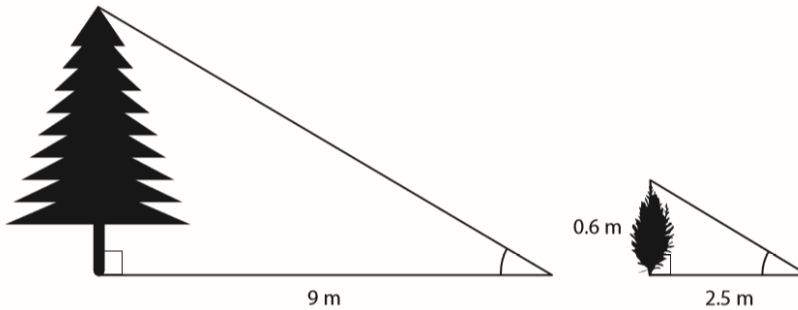
16. A telephone pole that is 40 feet tall casts a shadow that is 16 feet long. Find the height of a mailbox that casts a 1.2-foot shadow.



17. A 25-foot flagpole casts a shadow that is 37.5 feet long. A man standing near the flagpole is 6 feet tall. At the same time of day, how long is his shadow?



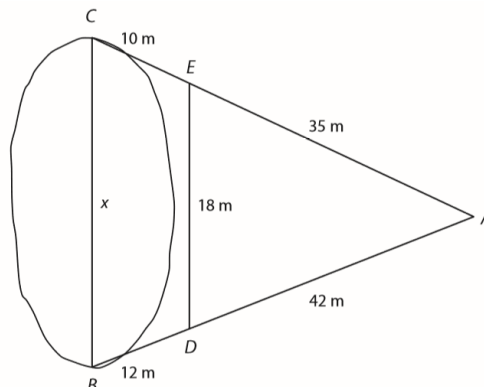
18. A tree on a tree farm casts a shadow 9 meters long. A shrub near the tree casts a shadow 2.5 meters long. If the shrub is 0.6 meters high, how tall is the tree?



19. A flat-roofed garage casts a shadow that is 9 meters long. At the same time, a 1.8-meter lamppost casts a shadow that is 2.7 meters long. What is the height of the garage?

20. A 12-foot statue casts a shadow that is 5 feet long. At the same time, a fence post casts a shadow that is 1.25 feet long. What is the height of the fence post?

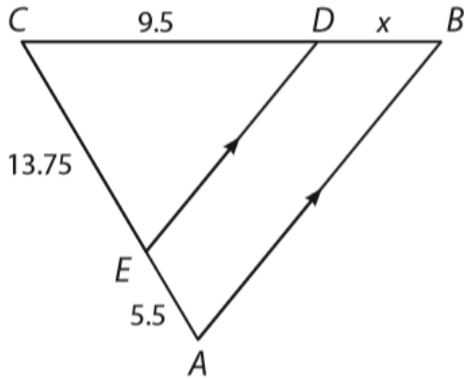
21. To measure BC, the distance across a lake, a surveyor stands at point A and locates points B, C, D, and E. To the nearest meter, what is the distance across the lake?



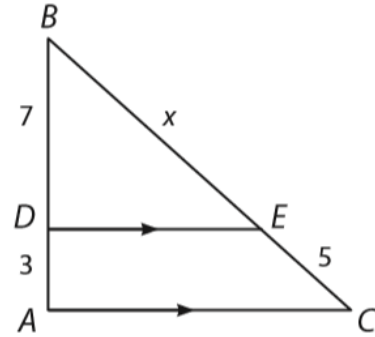
Triangle Proportionality Theorem and Triangle Bisector Theorem

Use the Triangle Proportionality Theorem and the Triangle Angle Bisector Theorem to find the unknown lengths of the given segments.

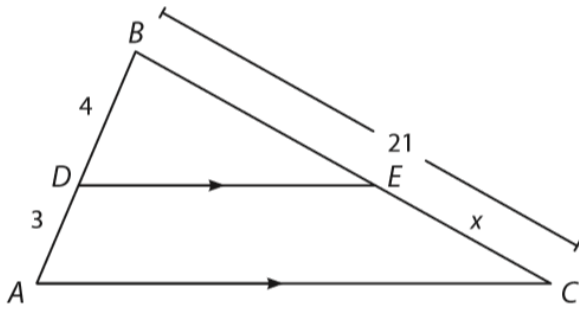
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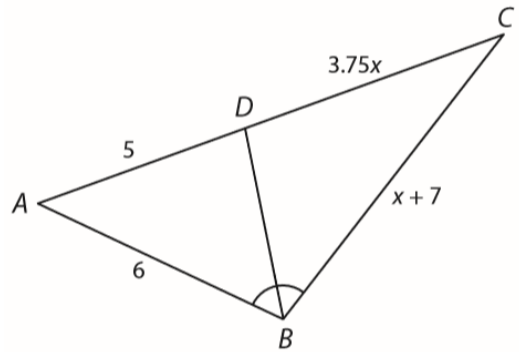
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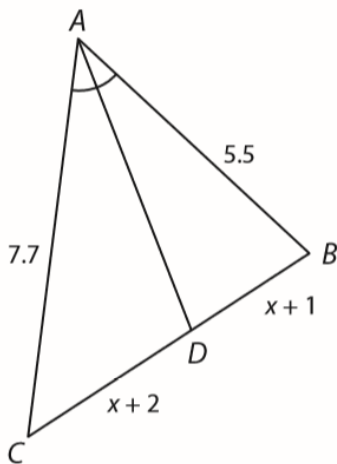
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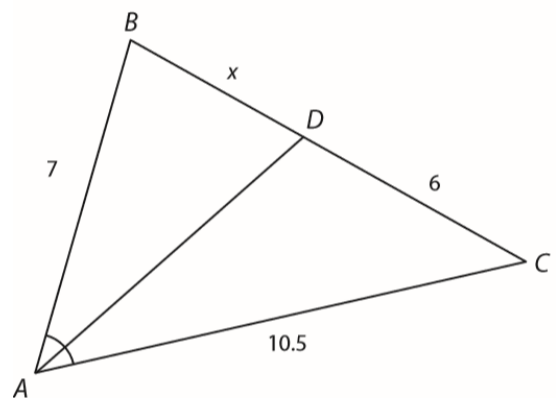
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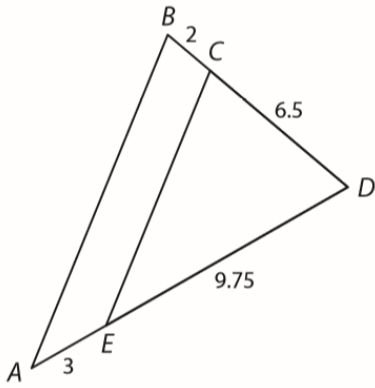
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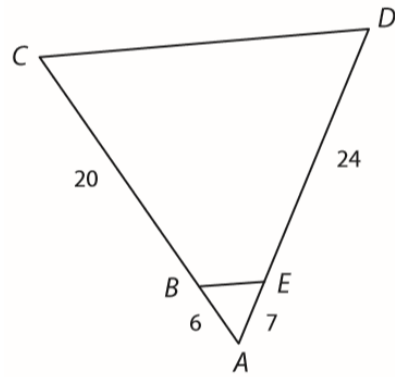
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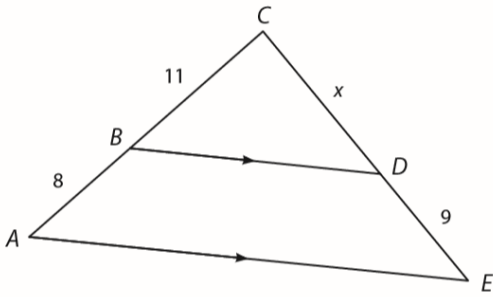
7. Is $AB \parallel EC$?



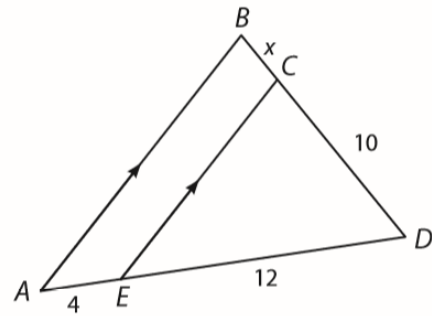
8. Is $BE \parallel CD$?



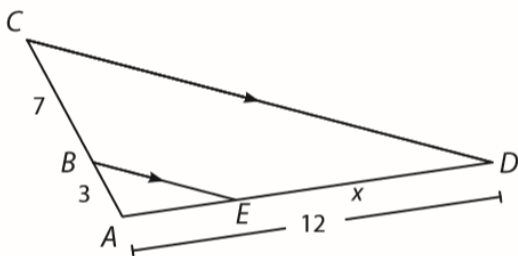
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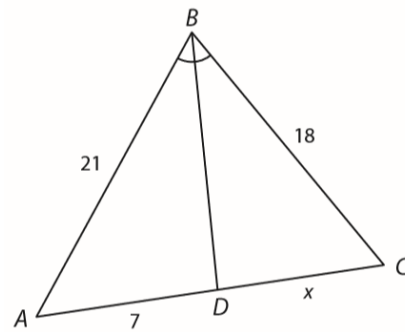
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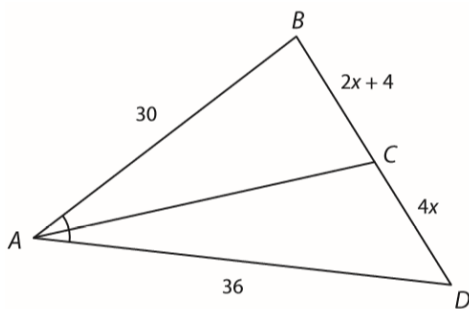
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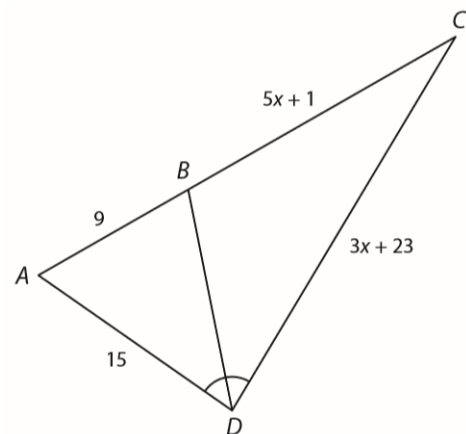
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13.



14.



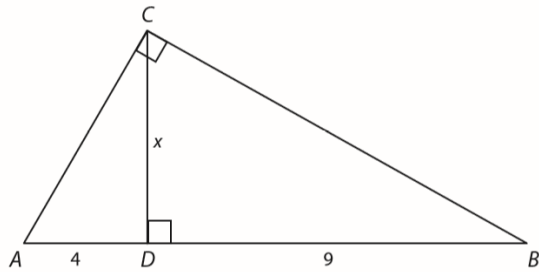
Name: _____

Block: _____

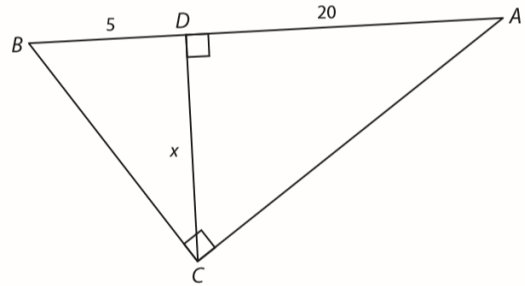
Proving the Pythagorean Theorem Using Similarity

Find the unknown length(s) in each figure.

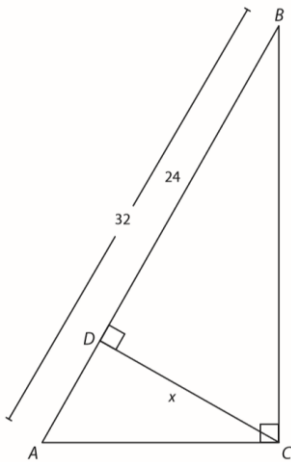
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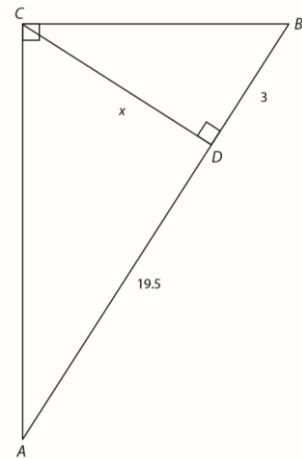
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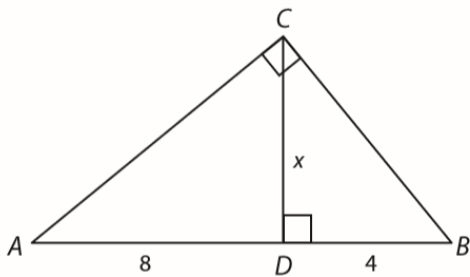
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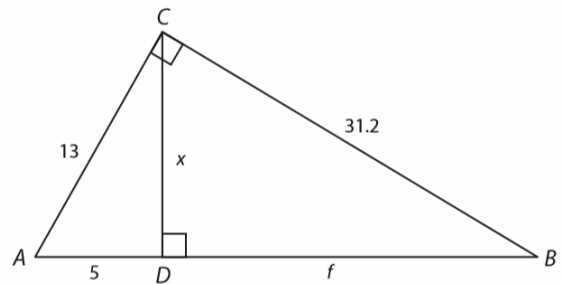
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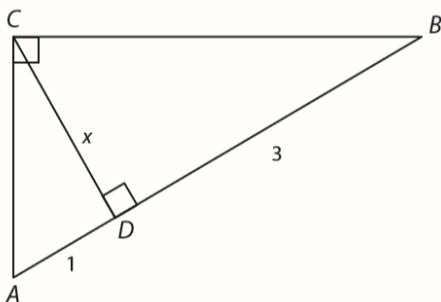
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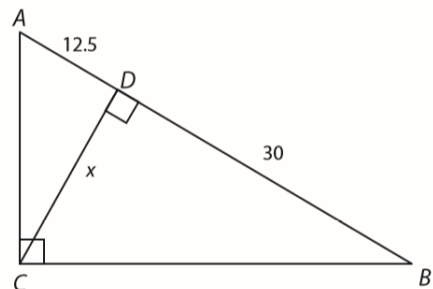
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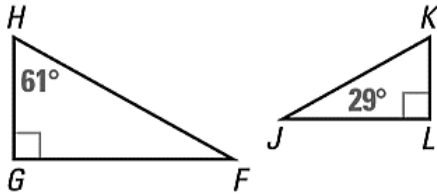
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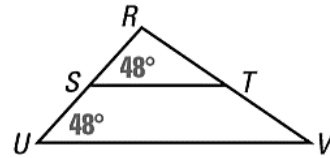
Solving Similar Triangles

Decide whether each pair of triangles is similar. Explain your answer. (AA, SAS, SSS)

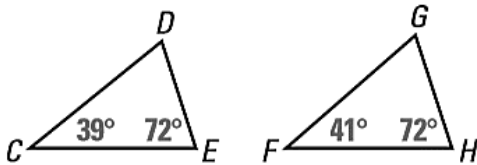
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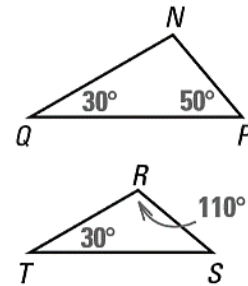
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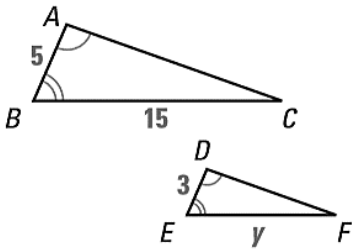


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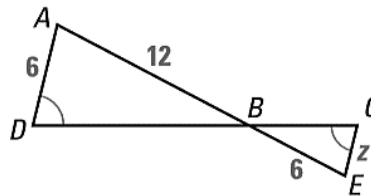


Given the triangles are similar, find the measures of the indicated sides.

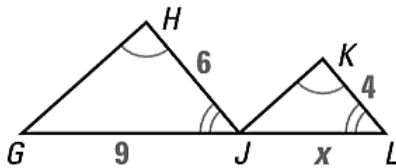
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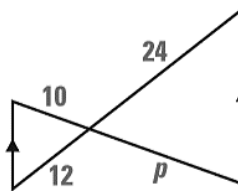
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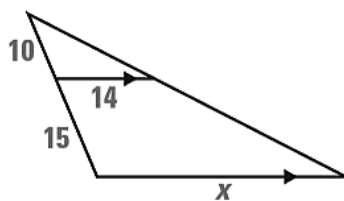
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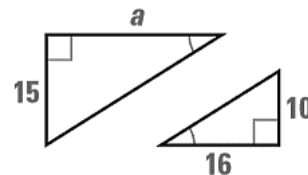
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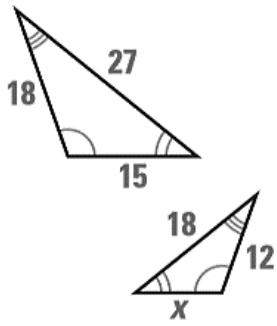
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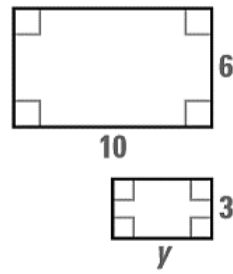
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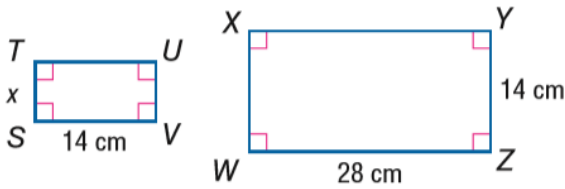
11.



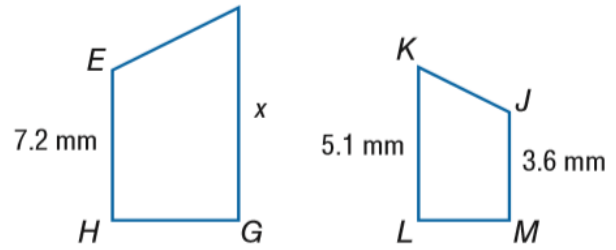
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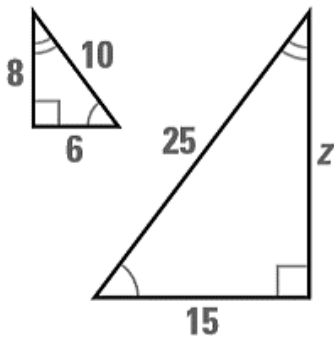
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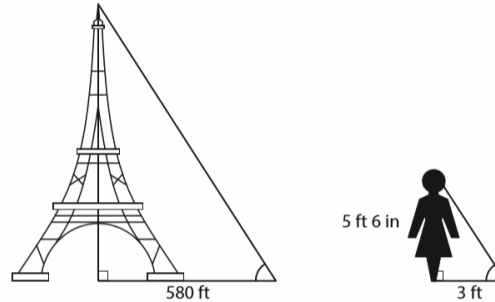
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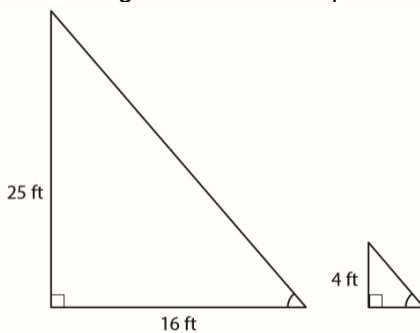
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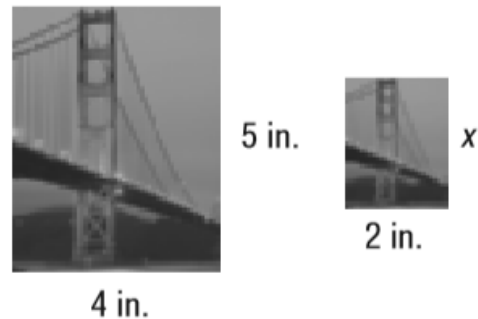
16. Sheila is standing near the Eiffel Tower in Paris, France. The shadow of the monument is 580 feet long, and Sheila's shadow is 3 feet long. If Sheila is 5 feet 6 inches tall, how tall is the monument?



17. A statue that is 25 feet tall casts a shadow that is 16 feet long. A cement post next to the statue is 4 feet tall. Find the length of the cement post's shadow.

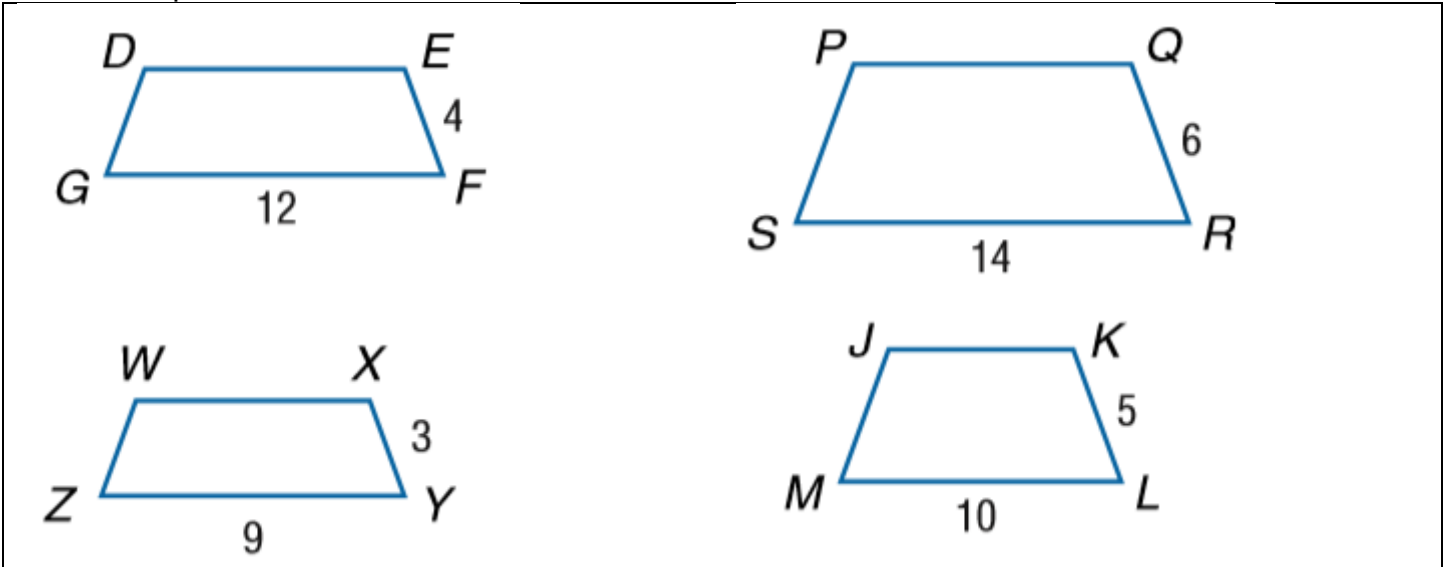


18. Destiny wants to resize a 4-inch wide by 5-inch long photograph for the school newspaper. It is to fit in a space that is 2 inches wide. What is the length of the resized photograph? 2.5 in

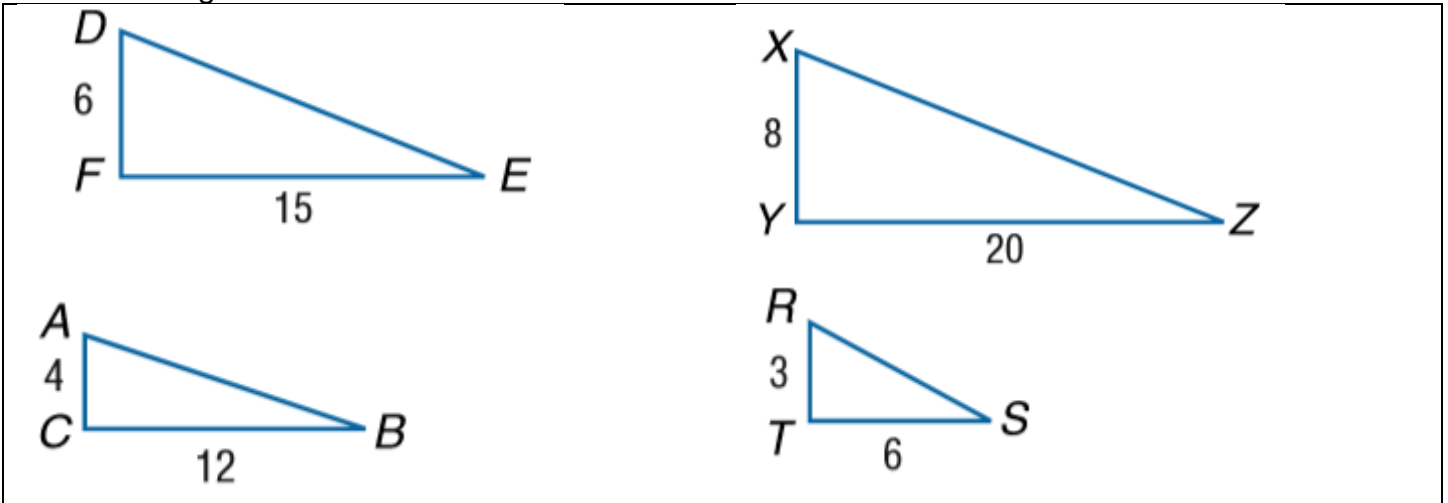


Similar Quadrilaterals

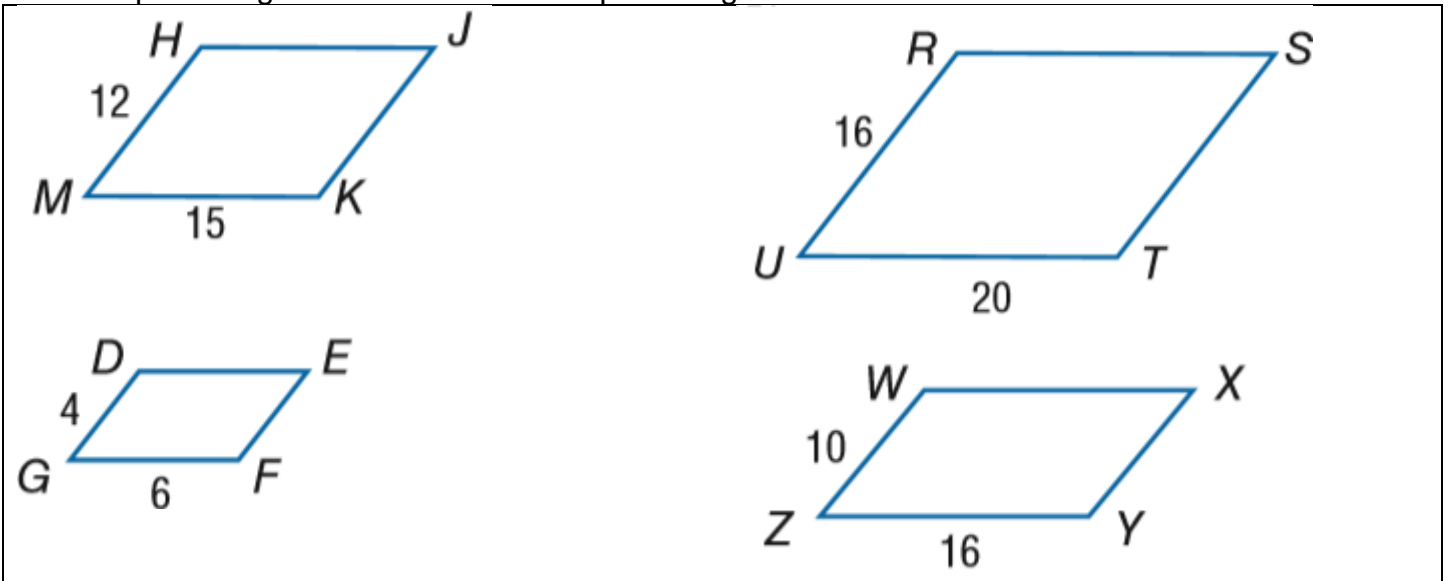
1. Which trapezoids are similar to DEFG?



2. Which triangle is similar to DEF?

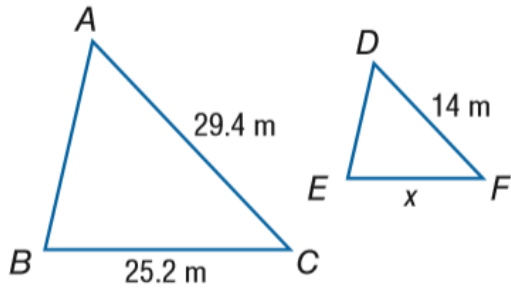


3. Which parallelogram below is similar to parallelogram HJKM?

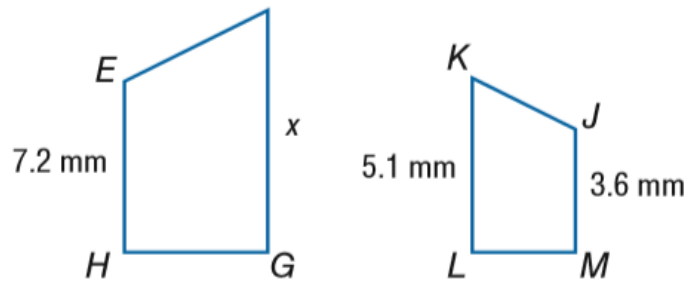


Find the value of x in each pair of similar figures.

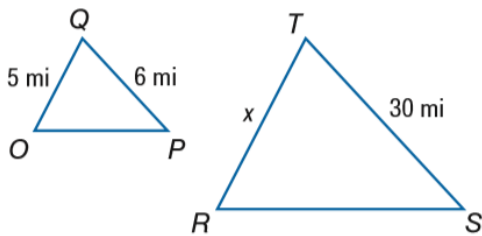
4.



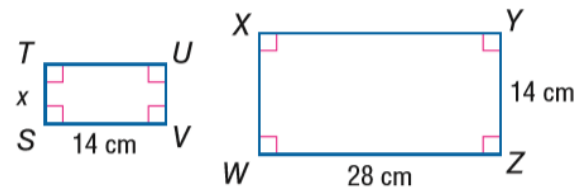
5.



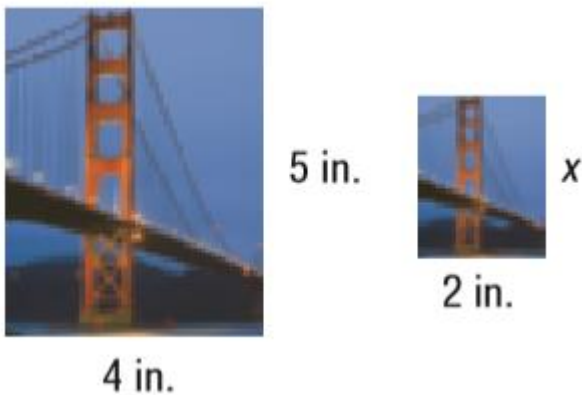
6.



7.



8. Destiny wants to resize a 4-inch wide by 5-inch long photograph for the school newspaper. It is to fit in a space that is 2 inches wide. What is the length of the resized photograph? 2.5 in



9. A child's desk is made so that it is a replica of a full-size adult desk. Suppose the top of the full-size desk measures 54 inches long by 36 inches wide. If the top of a child's desk is 24 inches wide and is similar to the full-size desk, what is the length?

