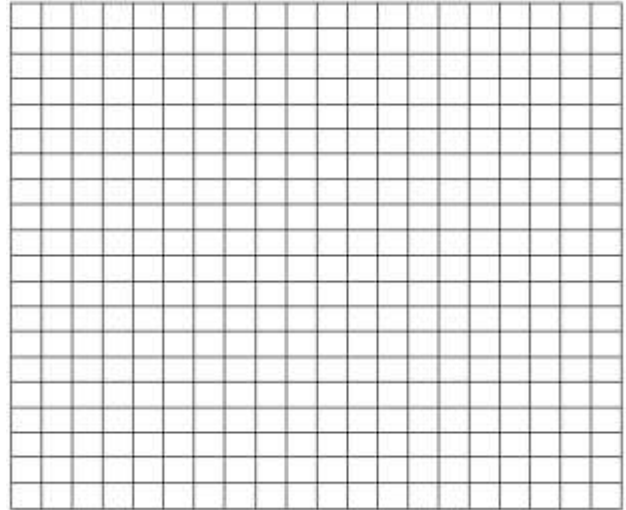


Geometry – Unit 4 Practice Test – Similarity and Proof – XX Points

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Standard G.SRT.1

1. Plot triangle ABC with endpoints A(-6, 4), B(4, 0) and C(-2,8).
 - a. Using Pythagorean Theorem(as needed), find
AB = (in grid units)
AC= (in grid units)
BC= (in grid units)
 - b. Graph A'B' after a dilation of scale factor 1/2 centered at point (-2, -2).



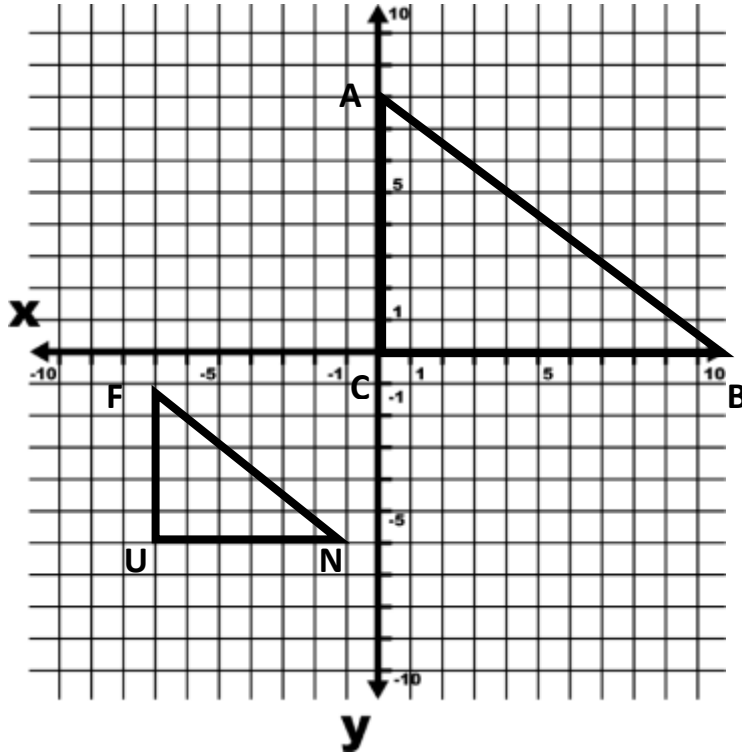
- c. What would be the coordinates of A', B' and C'?
 - d. Using Pythagorean Theorem(as needed), find
A'B' = (in grid units)
A'C' = (in grid units)
B'C' = (in grid units)
- e. Explain how you know that $AB \parallel A'B'$.

Geometry – Unit 4 Practice Test – Similarity and Proof – XX Points

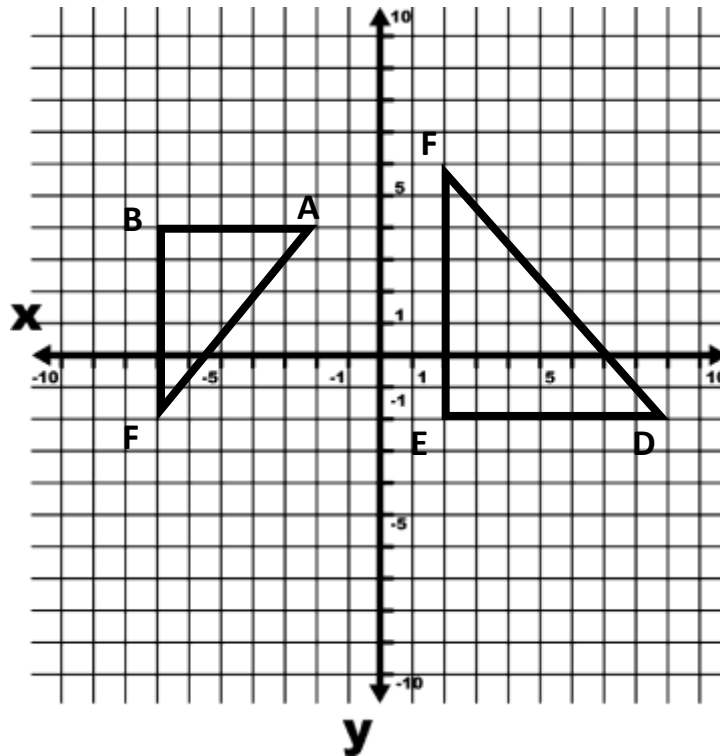
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Standard G.SRT.2

2. Is $\triangle ABC \sim \triangle FUN$? Explain your answer in at least three sentences.



3. Is $\triangle ABC \sim \triangle DEF$? Explain your answer in at least three sentences.

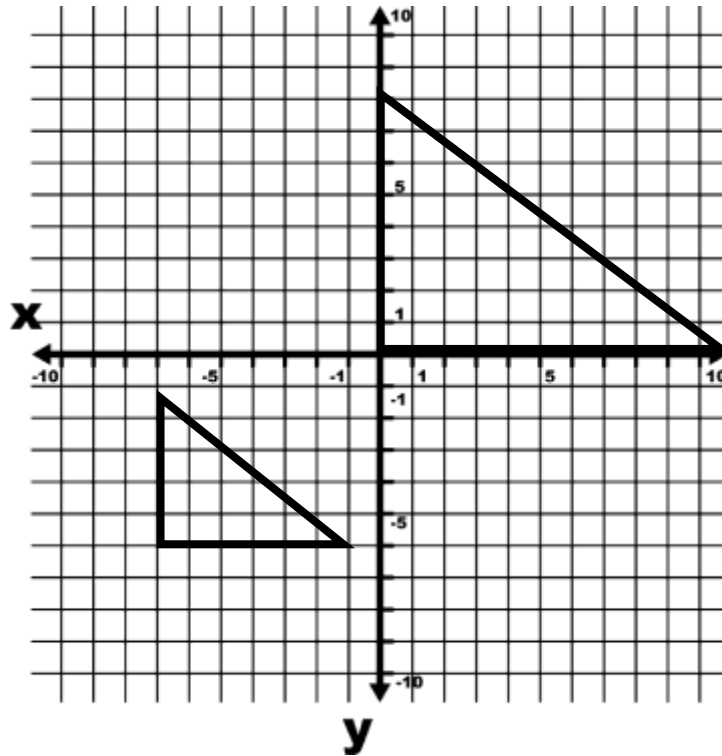


Geometry – Unit 4 Practice Test – Similarity and Proof – XX Points

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Standard G.SRT.3

4. a. Describe the dilation that mapped $\triangle ABC$ onto $\triangle A'B'C'$. (Remember, dilation is a scale factor AND a center of dilation.)

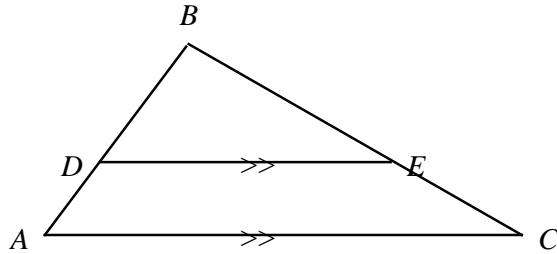


Geometry – Unit 4 Practice Test – Similarity and Proof – XX Points

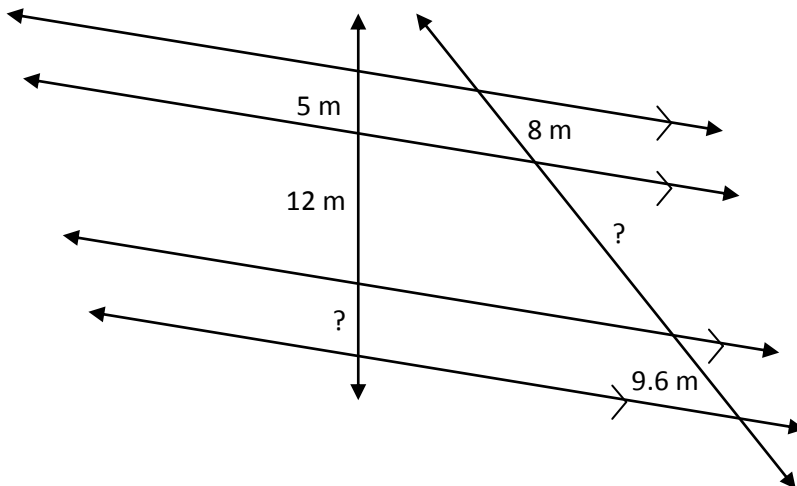
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Standard G.SRT.4

4. Given that $\triangle ABC \sim \triangle DBE$, explain how you know that $DE \parallel AC$.



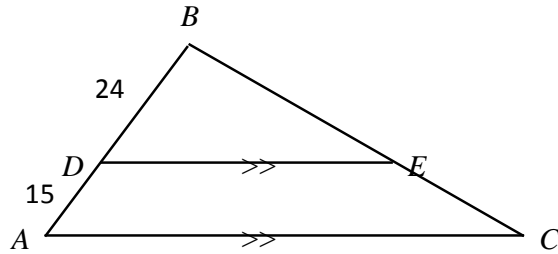
5. Find the two missing distances.



Geometry – Unit 4 Practice Test – Similarity and Proof – XX Points

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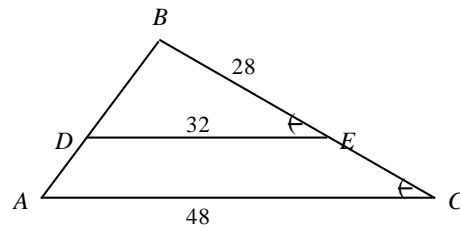
6. Assume **BE IS NOT EQUAL TO BD**. Name three **possible** combinations for BE and EC. Explain how you know they are possible.



Standard G.SRT.5

7. Use the picture at left to complete the following tasks.

a. Explain why $\triangle ABC \sim \triangle DBE$



b. Find BC .

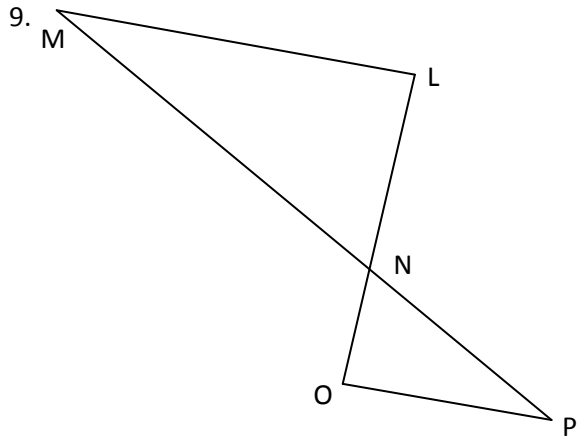
Geometry – Unit 4 Practice Test – Similarity and Proof – XX Points

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8. Draw two similar right triangles. Explain the process you used to draw them that ensured that they were similar.

Geometry – Unit 4 Practice Test – Similarity and Proof – XX Points

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Suppose that angle L and angle O are both right angles.

a. Prove that $\triangle NLM \sim \triangle NOP$.

b. $LM = 10$, $LN = 7$, and $NO = 3$.

Find MP and LO .