

Name _____

Date _____

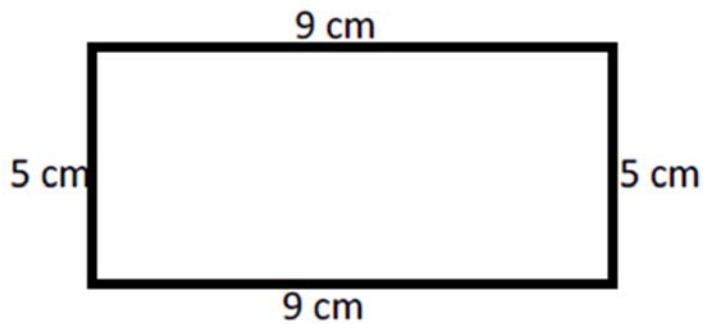
Lesson 7: Similarity

Dilations:

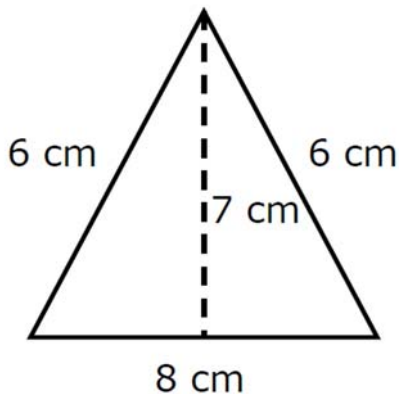
Video Help: <https://learnzillion.com/lessons/3205-analyze-dilation-of-parallelograms>

Directions: Use your knowledge of dilations to answer the questions below.

- 1) The rectangle below is dilated by a scale factor of 3. What are the new dimensions of the rectangle?

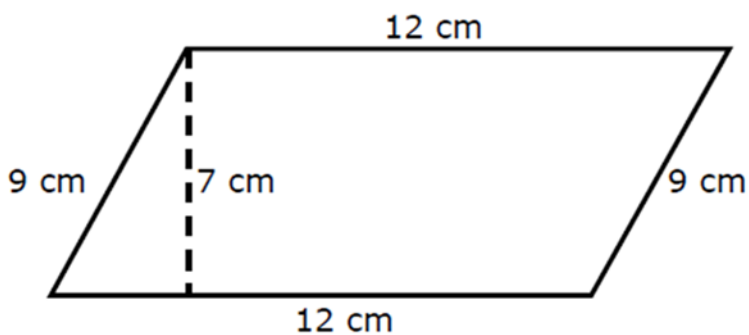


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- 2) The triangle below is dilated by a scale factor of 4. What is the new perimeter of the triangle?



Video help: <https://learnzillion.com/lessons/1131-find-a-perimeter-by-using-a-scale-factor-and-a-proportion>

- 3) The parallelogram below is dilated by a scale factor of 2. What is the new perimeter of the parallelogram?



Video help: <https://learnzillion.com/lessons/1132-find-an-area-by-using-a-scale-factor-and-a-proportion>

- 4) The square below is dilated by a scale factor of 3. What is the new area of the square?



Scale Factor and Similar Figures

Video Help 1: <https://learnzillion.com/lessons/1130>

Video Help 2: <https://learnzillion.com/lessons/1133-make-a-new-scale-drawing-from-a-given-one>

- 5) Kevin rides the subway to work every day. On a route map, the distance between the station by his house and the station by his work is 4 centimeters. If the map uses a scale of 1 centimeter = 2 kilometers, how far apart are the two subway stations in real life?

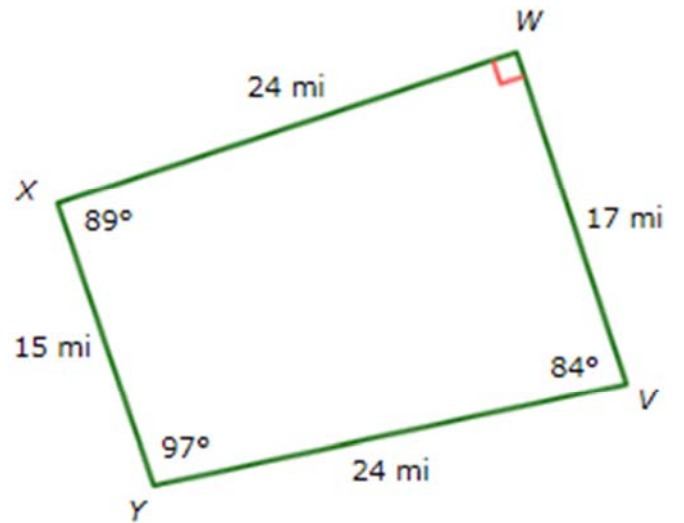
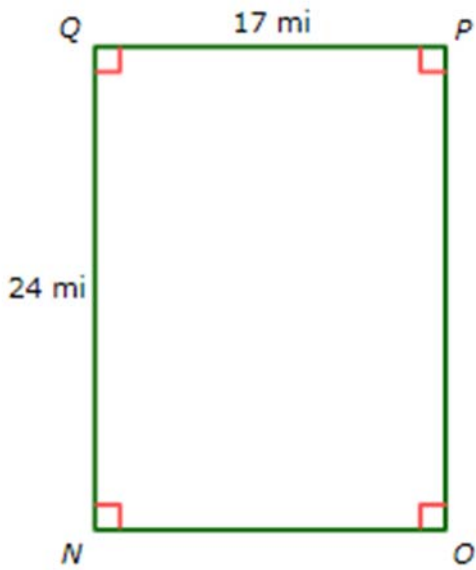
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- 6) Carter made a scale drawing of a theater. The scale of the drawing was 1 inch = 4 feet. The stage is 32 feet wide in real life. How wide is the stage in the drawing?

7) A flyer $8\frac{1}{2}$ inches wide by 11 inches high is to be enlarged into a poster size that is 34 inches wide. How high will the poster be?

8) A picture 12 cm long and 9 cm wide is to be enlarged so its length will be 16 cm. How wide will the enlarged picture be?

9) Jenny wishes to enlarge a rectangular photograph that is $4\frac{1}{2}$ inches long and $2\frac{3}{4}$ inches wide so that it will be 9 inches long. How wide will the enlargement be?

10) Are the figures below similar? Explain why or why not.



11) The following trapezoids are similar. Find the missing angle measure.

