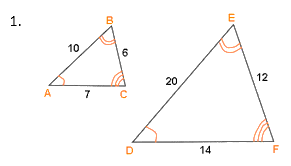
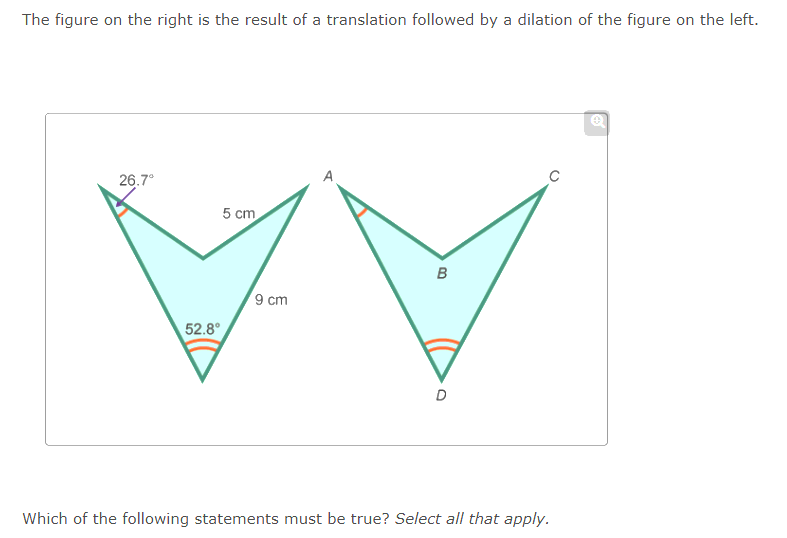
Homework 4.4 – Definition of Similarity Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Mathematically prove that . Show and label all your work.



2. The figure on the right is the result of a translation followed by a dilation of the figure on the left. Scale factor 3.

Which of the following statements must be true? *Choose all that apply.*

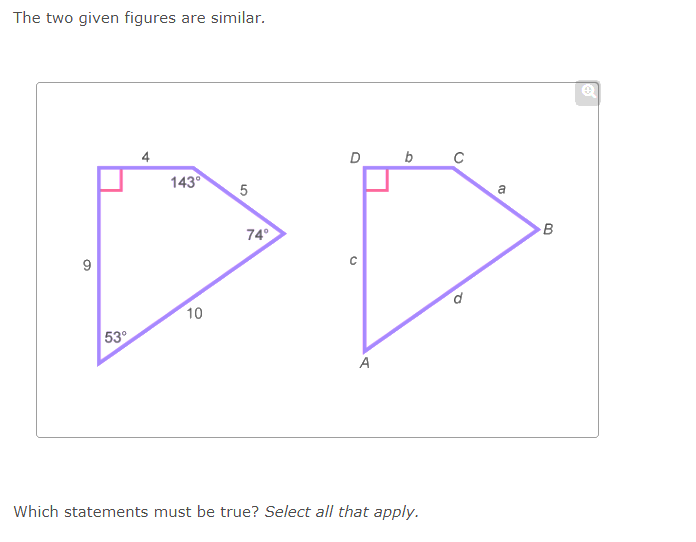
a. d.

b. e.

c. f.

Not to Scale.

3. The two given figures are similar. No scale factor has been specified.



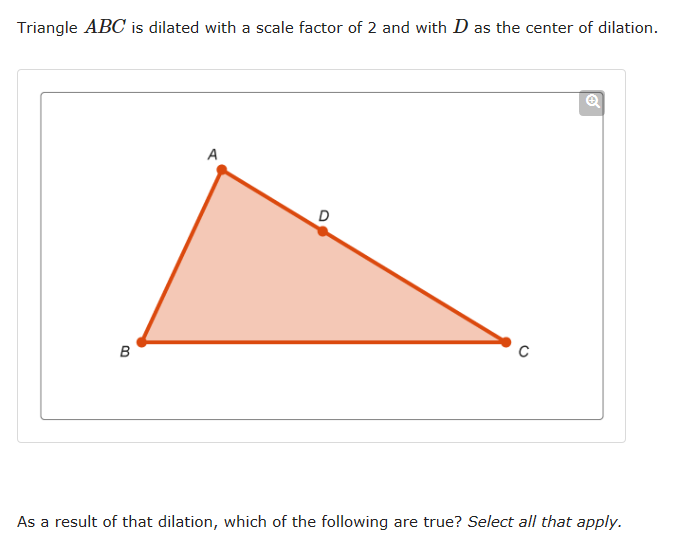
Which of the following statements must be true? *Choose all that apply.*

a. d.

b. e.

c. f.

4. is dilated with a scale factor of 2 and with *D*  as the center of dilation.



As a result of that dilation, which of the following are true? *Choose all that apply.*

a. *A*, *B*, and *A’* are collinear

b. *B*, *C*, and *B’* are collinear

c. *A*, *C*, and *C’* are collinear

d.

e.

f.