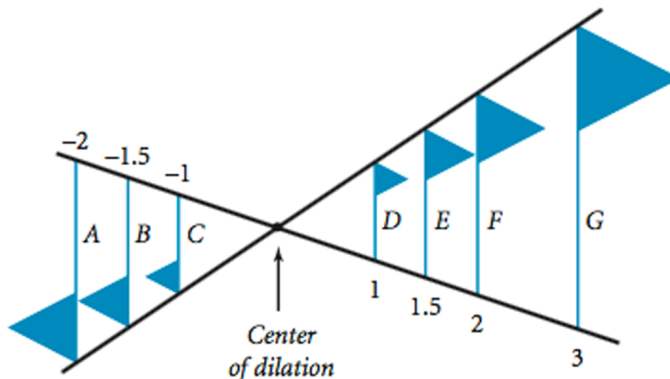


# 16. Checking Your Understanding: Repeated Dilations

First & Last Name: \_\_\_\_\_ Class: \_\_\_\_\_



This diagram above shows dilations of a pennant, with center of dilation and projection lines drawn. Answer each question and **explain your reasoning**.

1. What scale factor of flag D gives G as the image? Explain.

2. What scale factor of flag F gives G as the image? Explain.

3. What scale factor of flag G gives F as the image? Explain.

4. What scale factor of flag A gives G as the image? Explain.

5. What is the image when flag F is dilated by a scale factor of  $-1$ ? Explain.

*(continued on the reverse)*

6. What sequence of dilations will take D onto F and then take F onto A? Explain.

7. If flag C is dilated by a factor of 2 and the resulting image is dilated by a factor of  $-1.5$ , which pennant is the final image? Explain.

8. What sequence of dilations will take flag D onto B and then take B onto G? Explain.

9. True or False?: The result of two positive dilations is always a positive dilation. Explain.

10. True or False?: The result of two negative dilations is always a negative dilation. Explain.

Item[Style[9, Plain]]