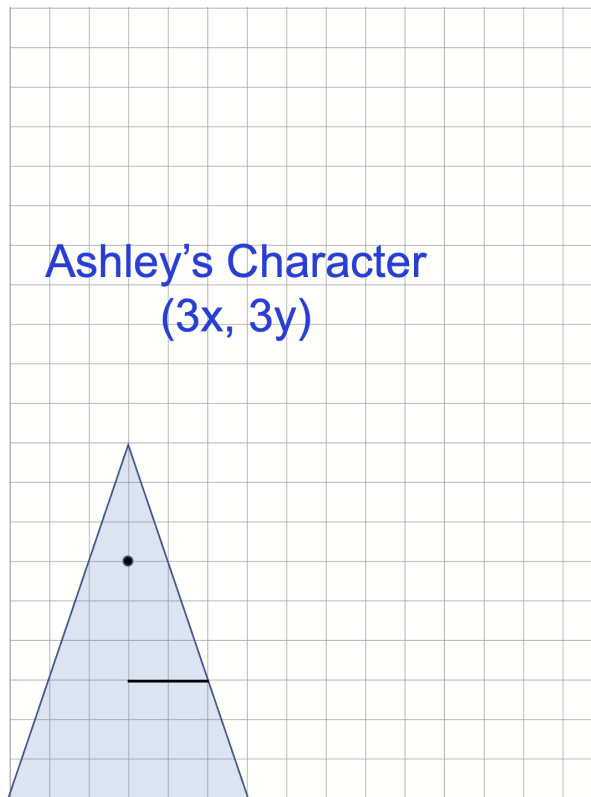


Stretching and Shrinking: Partner Quiz for use after Investigation 2

1. Ryan drew a one-eyed triangle character on grid paper.

Ashley decided to make a scale drawing of Ryan's character using the rule $(3x, 3y)$.

Simone decides to make her own character that is a scale drawing of Ashley's. Simone doubles all of the lengths.

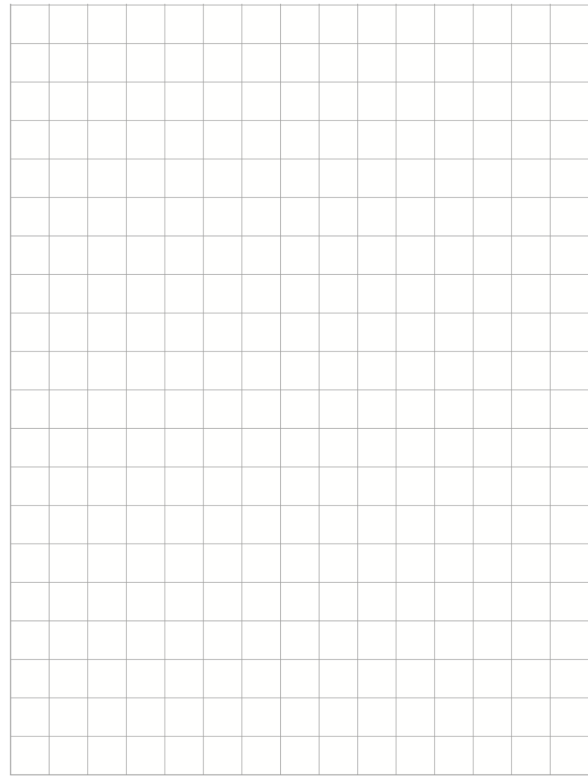
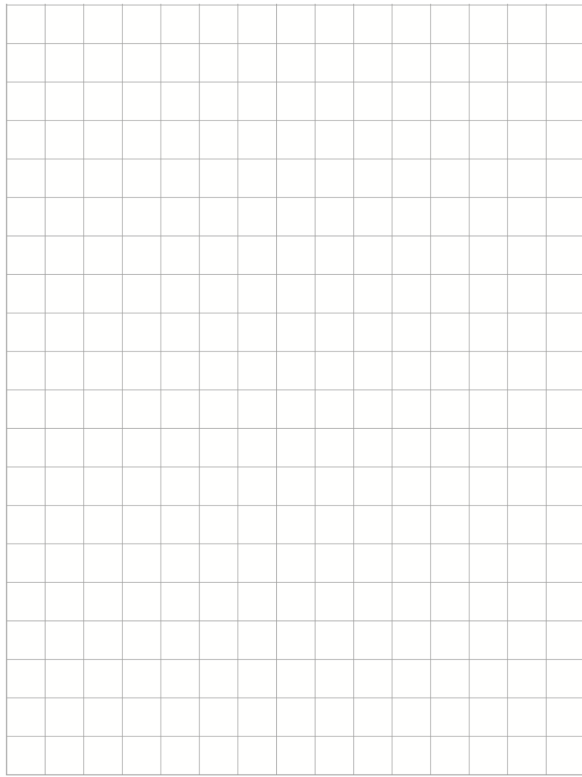


- a. On the grid below, sketch Ryan's original character.

Ryan's One-eyed Character

- b. On the grid below, sketch Simone's new version of Ashley's character.

Simone's One-eyed Character



- c. Is Simone's character a scale drawing of Ryan's? Explain.

- d. What is the rule to make Simone's character from Ryan's character?

- e. Suni want to try this rule $(x + 2, y - 3)$ on Ryan's character. What would happen?

- f. Would Suni's new character be similar to Ryan's original? Explain.

- g. Migal likes Ashley's character. Migal wants to make a new character that is very wide but not very tall. Write a rule for Migal. The rule needs to transform Ashley's character into Migal's wide but not very tall character.

h. Is Migal's new character a scale drawing (similar) of any of the other triangle characters? Why or why not?

2. A map is a scale drawing of an area of land. It is a representation of a place. A scale is given on the map to help people think about the actual size of the area. We can estimate the distance between places on the map. Look closely at the map of the United States. Find the scale on the map that gives the relationship between the drawing and the actual land mass.

a. Find a reasonable estimate of the distance from Washington DC to Columbus, Ohio.

b. Find a reasonable estimate of the distance from Springfield, Illinois to Denver, Colorado. Explain what you did to find your answer.

c. Jack said, "I can find different capital cities that are about 600 miles apart." Using the map, name two pairs of capital cities that are about 600 miles apart. Explain how you found capitals that match the given distance?

