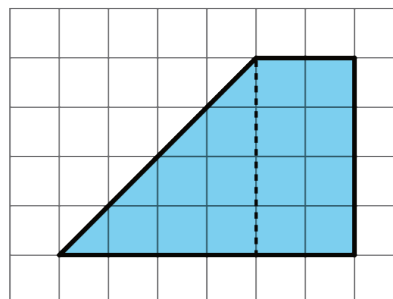


Lesson 7 Practice Problems

1. To decompose a quadrilateral into two identical shapes, Clare drew a dashed line as shown in the diagram.



- a. She said that the two resulting shapes have the same area. Do you agree? Explain your reasoning.

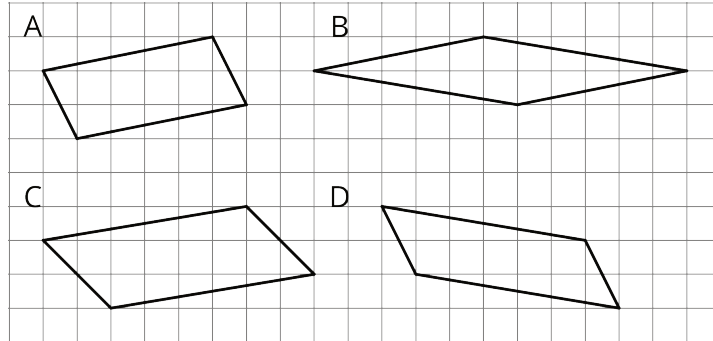
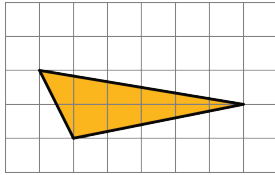
- b. Did Clare partition the figure into two identical shapes? Explain your reasoning.

2. Triangle R is a right triangle. Can we use two copies of Triangle R to compose a parallelogram that is not a square?

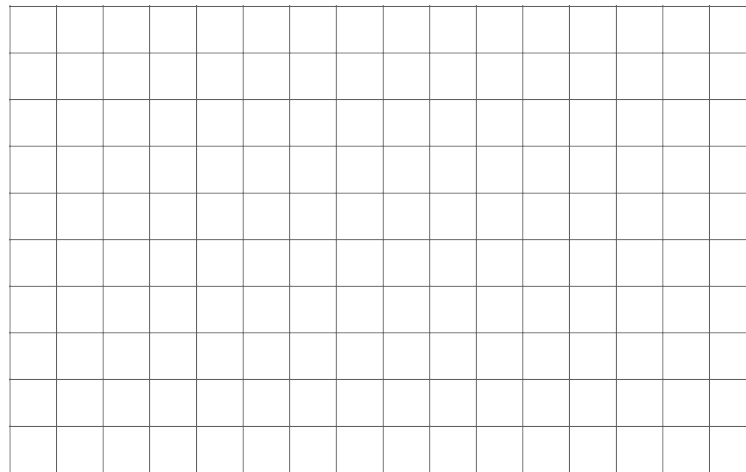


If so, explain how or sketch a solution. If not, explain why not.

3. Two copies of this triangle are used to compose a parallelogram. Which parallelogram *cannot* be a result of the composition? If you get stuck, consider using tracing paper.



- A. A
 - B. B
 - C. C
 - D. D
4. a. On the grid, draw at least three different quadrilaterals that can each be decomposed into two identical triangles with a single cut (show the cut line). One or more of the quadrilaterals should have non-right angles.

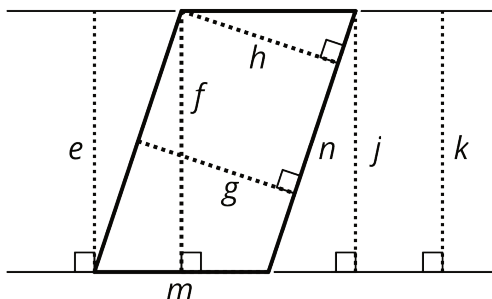


- b. Identify the type of each quadrilateral.

5. a. A parallelogram has a base of 9 units and a corresponding height of $\frac{2}{3}$ units. What is its area?
- b. A parallelogram has a base of 9 units and an area of 12 square units. What is the corresponding height for that base?
- c. A parallelogram has an area of 7 square units. If the height that corresponds to a base is $\frac{1}{4}$ unit, what is the base?

(From Unit 1, Lesson 6.)

6. Select **all** the segments that could represent the height if side n is the base.



- A. e
- B. f
- C. g
- D. h
- E. m
- F. n
- G. j
- H. k

(From Unit 1, Lesson 5.)