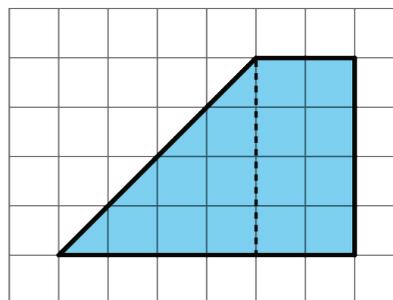


## Unit 1 Lesson 7 Cumulative Practice Problems

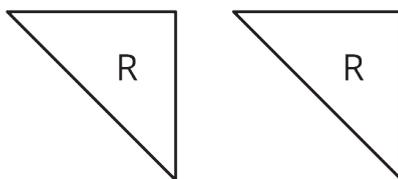
1. To decompose a quadrilateral into two identical shapes, Clare drew a dashed line as shown in the diagram.



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

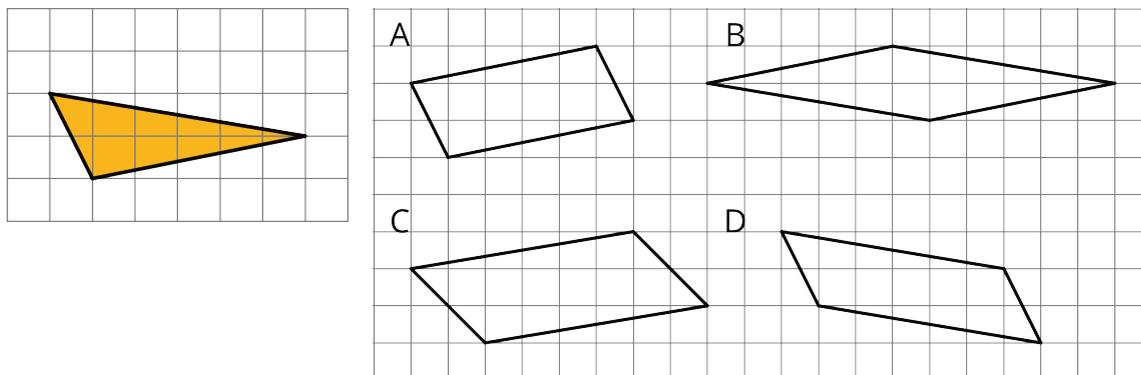
- b. Did Clare partition the figure into two identical shapes? Explain your reasoning.

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.

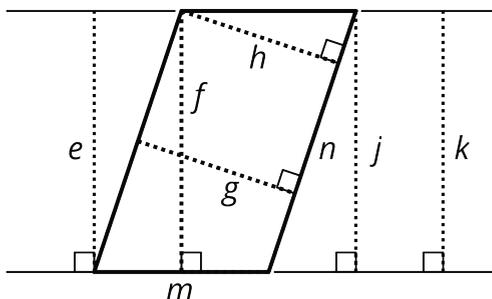


- b. Identify the type of each quadrilateral.

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.)