

Areas of Parallelograms

Lesson 5-2

DATE

TIME

For Problems 1–3, cut out Parallelograms A–C on *Math Masters*, page 208.

DO NOT CUT OUT THE ONES BELOW.

Cut each parallelogram into two pieces so that it can be made into a rectangle.

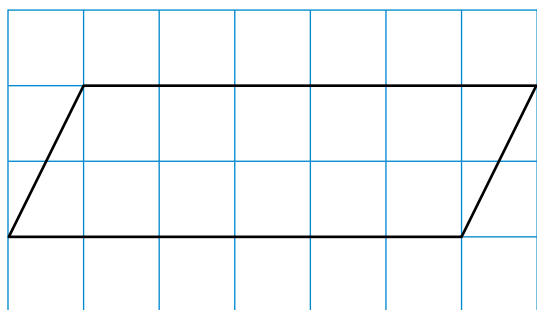


1 cm²

Draw line segments on Parallelograms A and B below to show their heights.

1 Parallelogram A

Tape your rectangle in the space below.



Base = _____

Length = _____

Height = _____

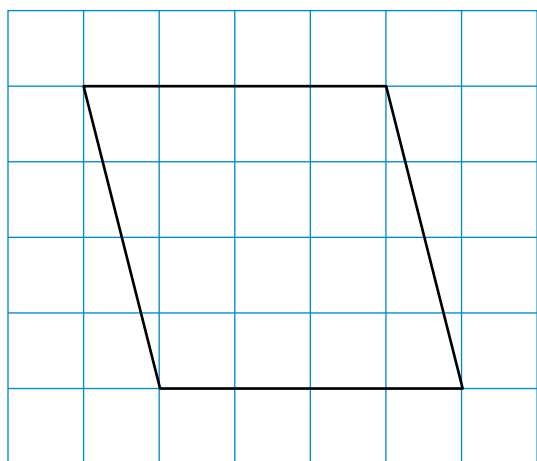
Width (height) = _____

Area of parallelogram = _____

Area of rectangle = _____

2 Parallelogram B

Tape your rectangle in the space below.



Base = _____

Length = _____

Height = _____

Width (height) = _____

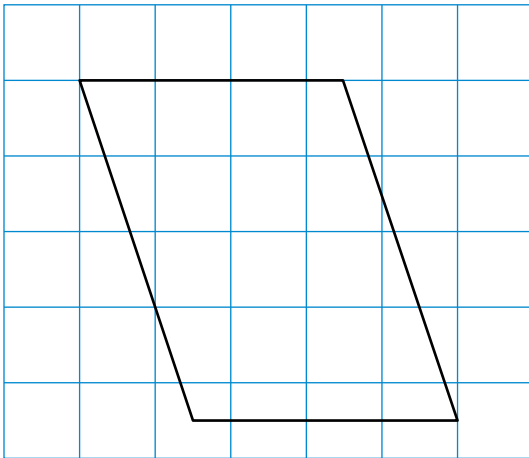
Area of parallelogram = _____

Area of rectangle = _____

- 3 Draw a line segment outside Parallelogram C to show its height.

Parallelogram C

Tape your rectangle in the space below.



Base = _____

Length = _____

Height = _____

Width (height) = _____

Area of parallelogram = _____

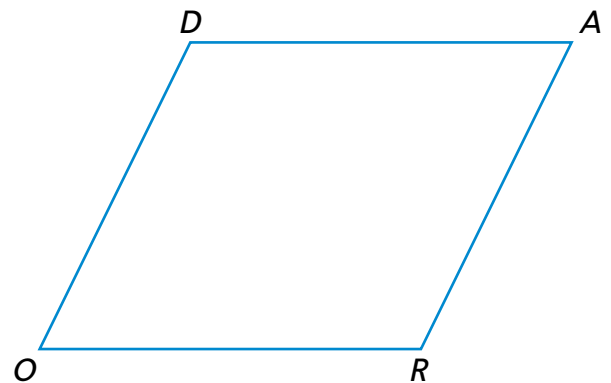
Area of rectangle = _____

- 4 a. Look for patterns in Problems 1–3. Use the patterns you find to write a formula for the area of a parallelogram. _____

- b. Use your formula to find the area of parallelogram *DORA*.

Use your ruler to measure where needed.

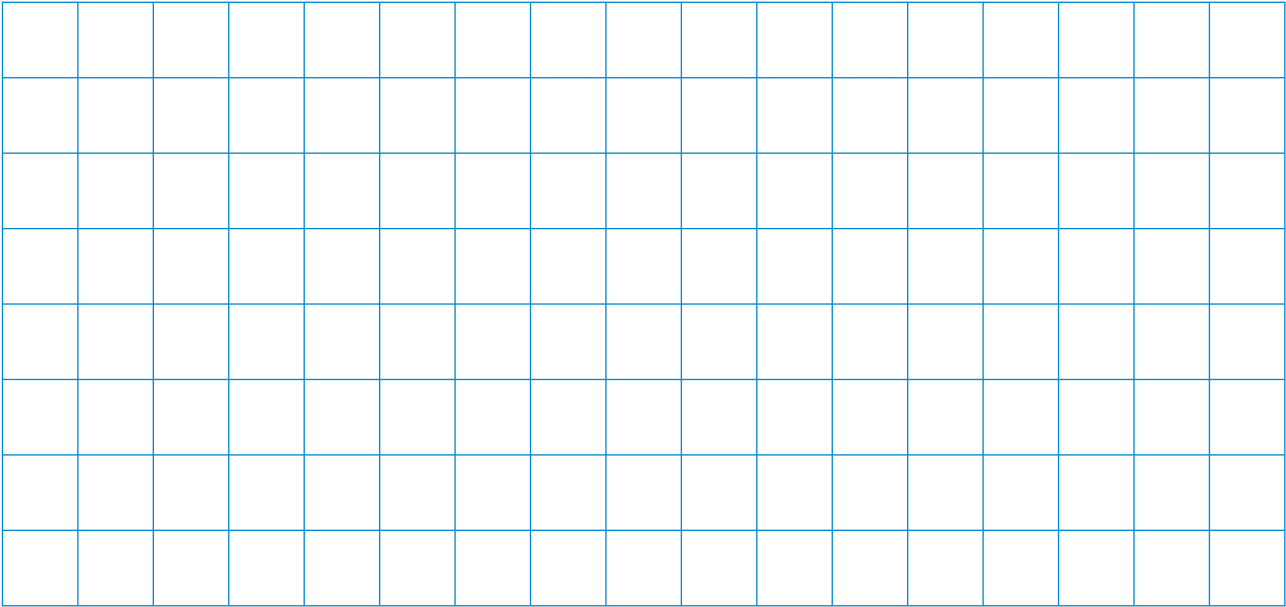
Draw on and label the parallelogram to show what you measured.



Area of parallelogram *DORA* _____

- c. Explain how you used the formula to find the area for parallelogram *DORA*.

- 5 For Parts a, b, and c, draw the polygon on the grid and label the height (h) and base (b):
- a. A rectangle whose area is 12 cm^2
 - b. A parallelogram that is not a rectangle and has an area of 12 cm^2
 - c. A different nonrectangular parallelogram with an area of 12 cm^2



Try This

- 6 Draw three parallelograms that have the same base and the same area but different perimeters.

