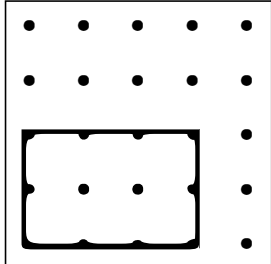


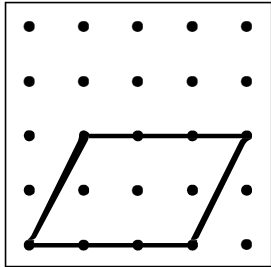
Area Problems

1 Build this rectangle on your geoboard. Find the area of the rectangle in square units.



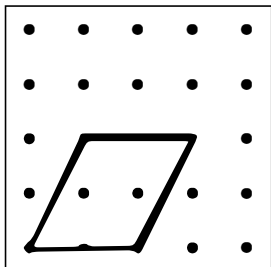
Area = _____
How did you figure it out?

2 Change the rectangle into a parallelogram. Find the area of the parallelogram in square units.



Area = _____
How did you figure it out?

3 Build this parallelogram on your geoboard. Find the area of the parallelogram in square units.



Area = _____
How did you figure it out?

4 Build a parallelogram on your geoboard that has an area of 3 square units. Record the parallelogram you built on geoboard paper. Use labeled sketches, numbers, and/or words to prove that the area is 3 square units.

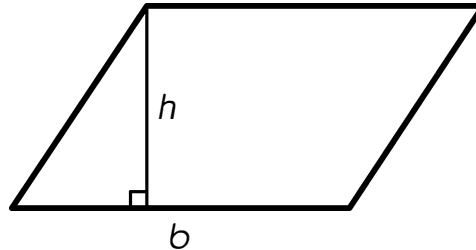
5 Build and record parallelograms with the following areas:

- 2 square units
- 9 square units
- 12 square units

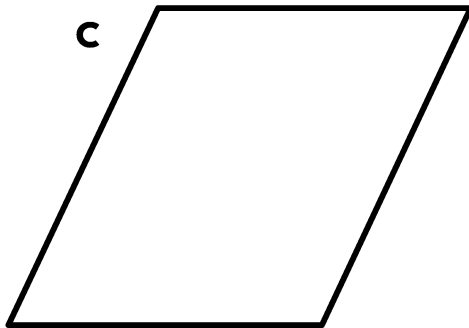
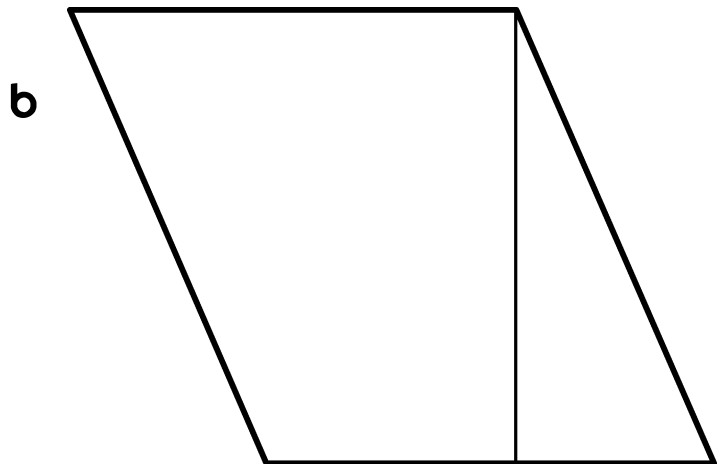
Use labeled sketches, numbers, and/or words to prove each area.

Finding the Area of Parallelograms page 1 of 2

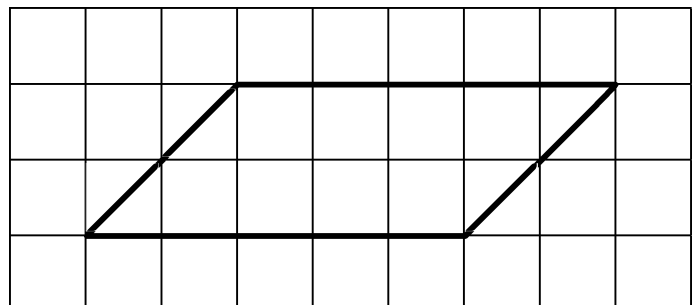
The height (h) of a parallelogram tells how far one side is from its opposite side. The height of a parallelogram must be perpendicular to the base (b) of the parallelogram.



1 Use the letter h to label the height of each parallelogram below. Use the letter b to label the base. If the height is not shown, use your ruler to draw it in, and then label it.



2 To find the area of a parallelogram, multiply base times height. Try it for yourself. Measure the base and the height of the parallelogram below in centimeters. Multiply the two measurements. Is the answer correct? Use a labeled sketch, numbers, and words to explain.


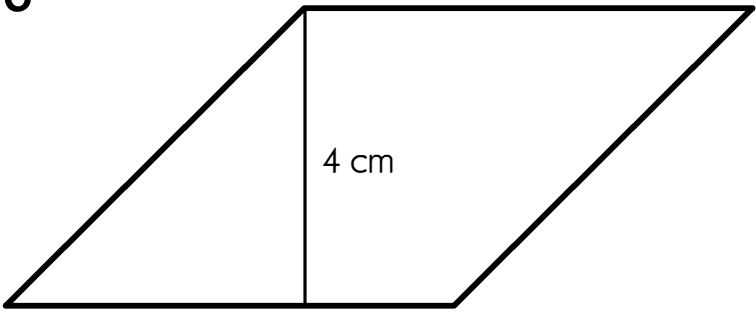


Finding the Area of Parallelograms page 2 of 2

Here is the formula for finding the area of a parallelogram.


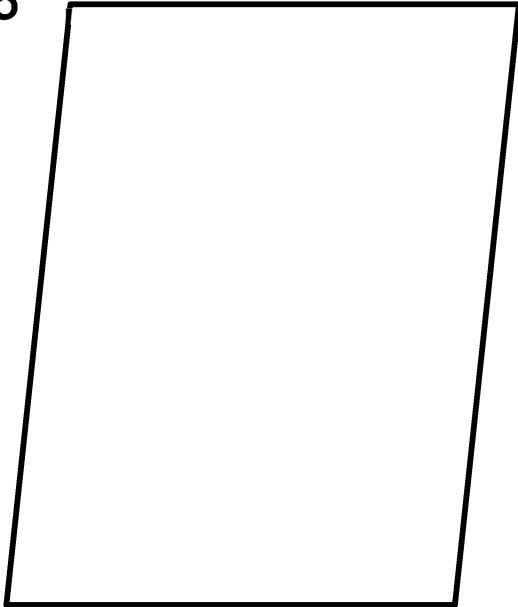
The area of a parallelogram = base \times height or $b \times h$ or bh . (Since a rectangle is a special kind of parallelogram, this is also the formula for the area of a rectangle.)

3 Find the area of each figure below. Use the formulas. Show your work.

<p>a</p>  <p>Area = _____ sq cm</p>	<p>b</p>  <p>Area = _____ sq cm</p>
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4 For each of the parallelograms below:

- draw in the height,
- measure and label the height and the base to the nearest centimeter,
- find and record the area and show your work.

<p>a</p>  <p>Area = _____ sq cm</p>	<p>b</p>  <p>Area = _____ sq cm</p>
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