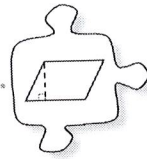


120

5.3.2 Can I make a rectangle?

Area of a Parallelogram



Today, you will use a technology tool to investigate this question: **Can all shapes be rearranged to make rectangles?** As you work, visualize what each shape will look like if it is cut into pieces. Also picture how those pieces could fit back together to make a rectangle. Ask yourself these questions while you investigate:

How can I break this shape apart?

How can I rearrange the pieces of the shape to make a new shape?

5-76 Use the links of google classroom to figure out which shapes can be rearranged into rectangles. There are eight figures, show your work in your notebook by:

First: Copying the rectangle you've created on the computer into your notebook. Label what shape number you're working on (1-8).

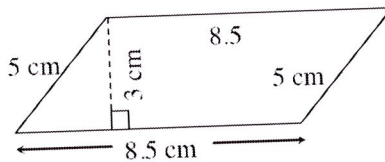
Second: Labeling the length and width of the rectangle (count boxes).

Third: Find the area of the rectangle(s).

(length x width)

5-78 AREA OF A PARALLELOGRAM

On her homework assignment, Lydia encountered the parallelogram shown at right. The homework problem asked her to find the area of the shape.



Lydia decided to cut and rearrange the shape to make a rectangle, as she did in problem 5-66. However, she was not sure what the measurements of that rectangle would be.

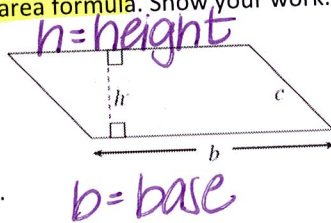
a) Sketch what Lydia's new rectangle would look like in your notebook. Label all sides.

b) What is the base of Lydia's new rectangle? What is the height?

c) Find the area of Lydia's new rectangle using the area formula. Show your work.

d) Look again at the original parallelogram. What is the base? What is the height?

e) Can you find the area of a parallelogram without re-arranging it into a rectangle? Explain.



8
48



5-

2

3

8

4

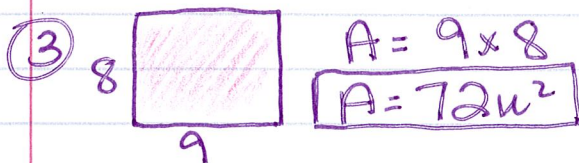
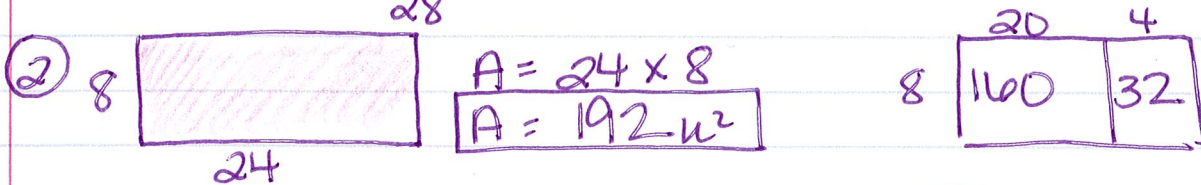
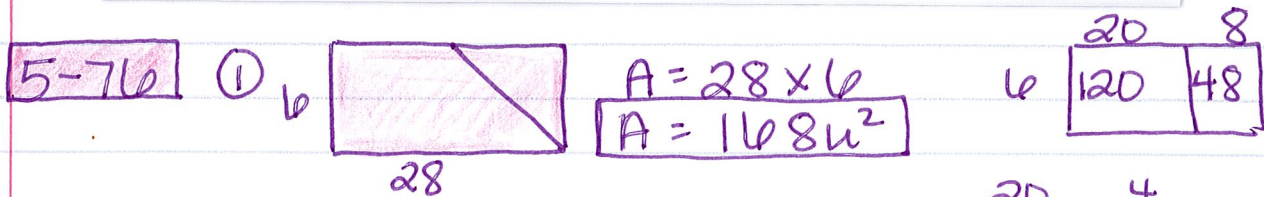
11

5-7

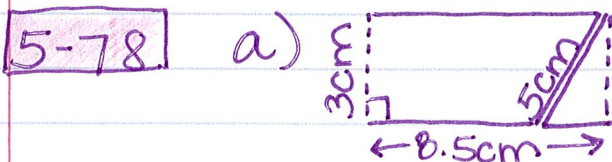
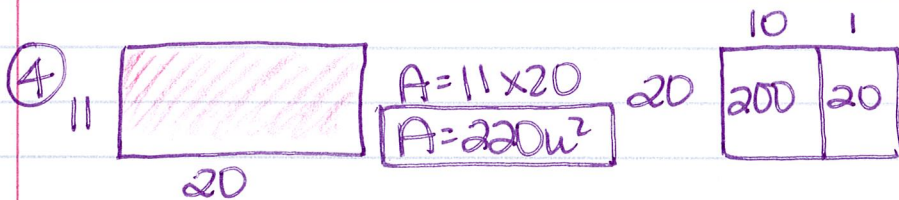
cm
-15

2a)
height
re as
tangle.

e.



shapes
5-8 on
page 121



b) The base is 8.5cm and the height is 3cm.

c)
$$\begin{array}{r} 8.5 \\ \times 3 \\ \hline 25.5 \end{array}$$
 $A = l \times w$
 $A = 25.5 \text{ cm}^2$

d) The original base and height are the same as the new rectangle.

e) Yes, just multiply the base and height.