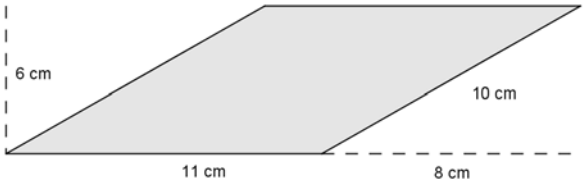
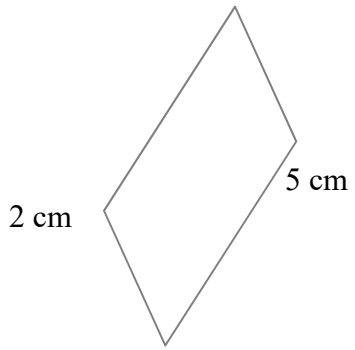
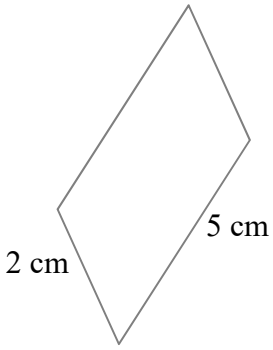
Parallelograms, triangles and trapezoids name:_____
class time:_____

1. **Draw** a rectangle with equal area to this parallelogram.

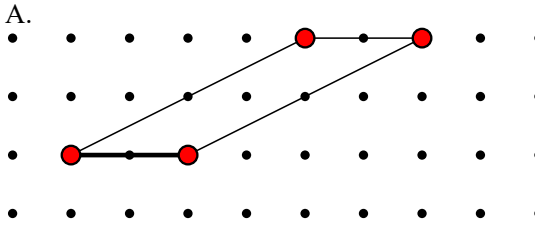



**Explain** how we know the areas are the same.

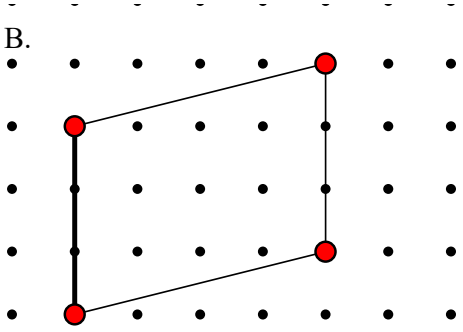
| 2. a. Draw a rectangle with equal area to this parallelogram, where one of its sides is the same as the 5 cm side on this parallelogram: | a. Draw a rectangle with equal area to this parallelogram, where one of its sides is the same as the 2 cm side on this parallelogram: |
|---|---|
|   |   |

3. For each of these parallelograms, find the area 2 ways:
a. by figuring a height from the bold base-side (draw the height and show the calculation
b. By surrounding by a rectangle and subtracting areas of right triangles. (label the parts and the calculation

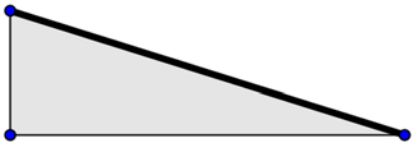
A.

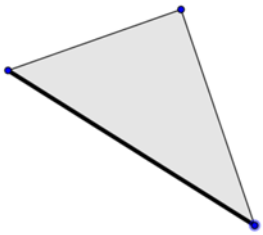


B.

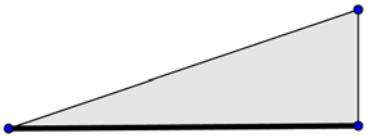


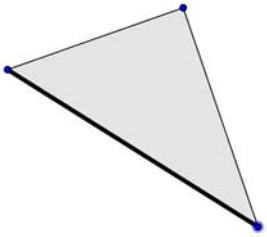
4. For each of these triangles, draw in a segment that shows the height of the triangle, given that the bold side is the base.

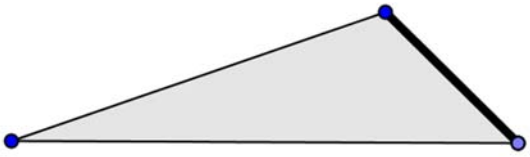


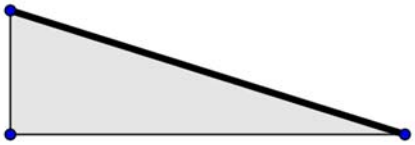


5. For each of these triangles, draw another congruent triangle (same shape and size) next to it, so that the two triangles together make a parallelogram. Put the triangles together in such a way that the bold edge of the triangle is one of the outside edges of the parallelogram so it can be the base.





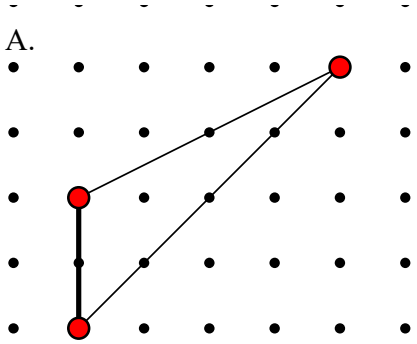




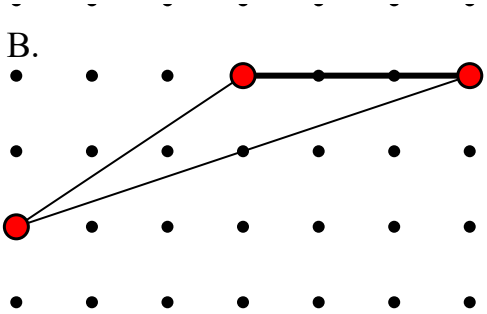
**Write:** How do we get the area of a triangle formula from these pictures? (the formula for the area of a triangle is half of what? Why?

6. For each of these triangles, find the area 2 ways:
a. by figuring a height from the bold base-side (draw the height and show the calculation
b. By surrounding by a rectangle and subtracting areas of right triangles. (label the parts and the calculation

A.



B.



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