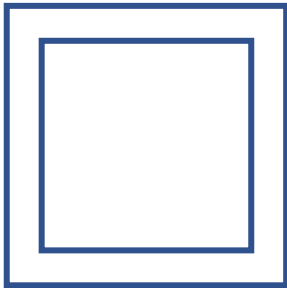


Ex 1. The length of a rectangle is  $4 m$  more than the width. The area of the rectangle is  $45 m^2$ . Find the length and the width.



Ex 2. A square picture is mounted in a frame  $1 cm$  wide. The area of the picture is  $\frac{2}{3}$  of the total area. Find the length of a side of the picture.



Problems to work IN YOUR JOURNAL:

1. The length of a rectangle is three times the width. The area is  $108 cm^2$ . Find the dimensions of the rectangle.
2. A square field has 3 meters added to its length and 2 meters added to its width. The field then had an area of  $90 m^2$ . Find the length of the original field.
3. The length of a rectangular park is  $2 km$  less than twice the width. The area is  $9 km^2$ . Find the dimensions of the park.
4. The base of a triangle is 3 cm longer than its height (aka altitude). The area of the triangle is  $35 cm^2$ . Find the height (altitude).
5. A flower garden is in the shape of a right triangle. The longest side of the triangle measures 13 meters. One of the shorter sides is 7 meters longer than the other. Find the length of the shortest side. (Hint: Pythagorean Theorem is your friend!)
6. A rectangular pond measures 3 meters by 5 meters. A concrete walk of uniform width is constructed around the pond. If the walk and pond together cover an area of  $39 m^2$ , how wide is the walk?