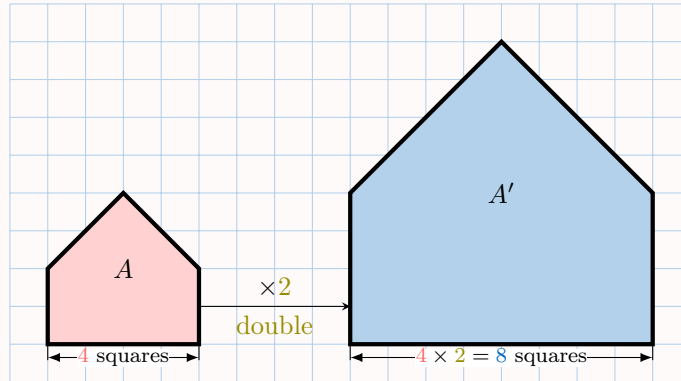


ENLARGEMENT AND REDUCTION

A WHAT ARE ENLARGEMENT AND REDUCTION?

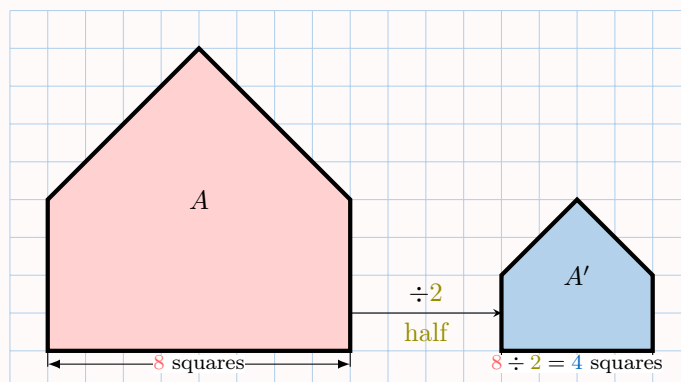
Definition Enlargement and Reduction

- An **enlargement** makes a shape larger by multiplying all side lengths by a number called the scale factor. In an enlargement, the scale factor is greater than 1.



In this example, shape A is enlarged to A' by multiplying each side length by 2 (scale factor = 2). The bottom side grows from 4 to 8 squares.

- A **reduction** makes a shape smaller. One way to do this is to divide all side lengths by the same number. This is the same as multiplying all side lengths by a scale factor between 0 and 1.



In this example, shape A is reduced to A' by dividing its side lengths by 2. This is the same as multiplying by the scale factor $\frac{1}{2}$. The bottom side shrinks from 8 to 4 squares.