FUN with ALGEBRA
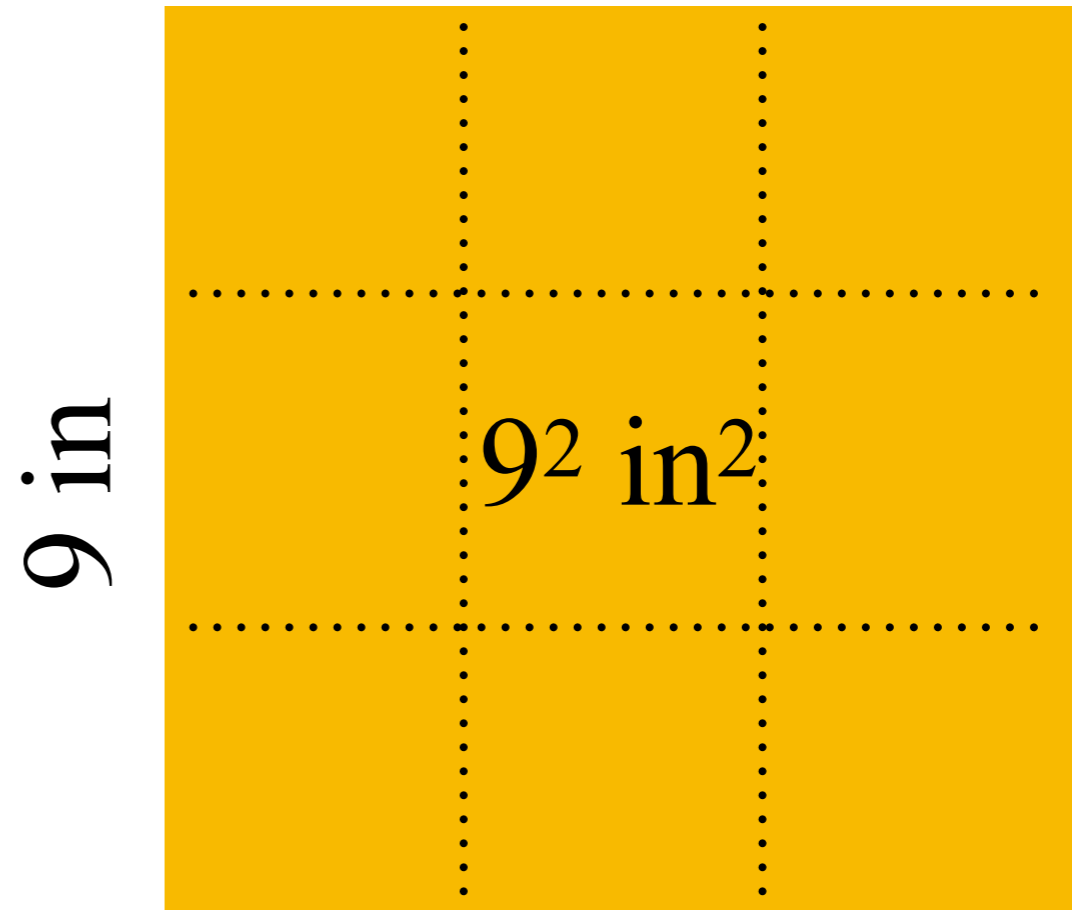
Some semi-practical applications

Square Pizzas:

How to divide up a 9 inch square pizza equally among 9 people?

Make 2 cuts x apart both vertically and horizontally.
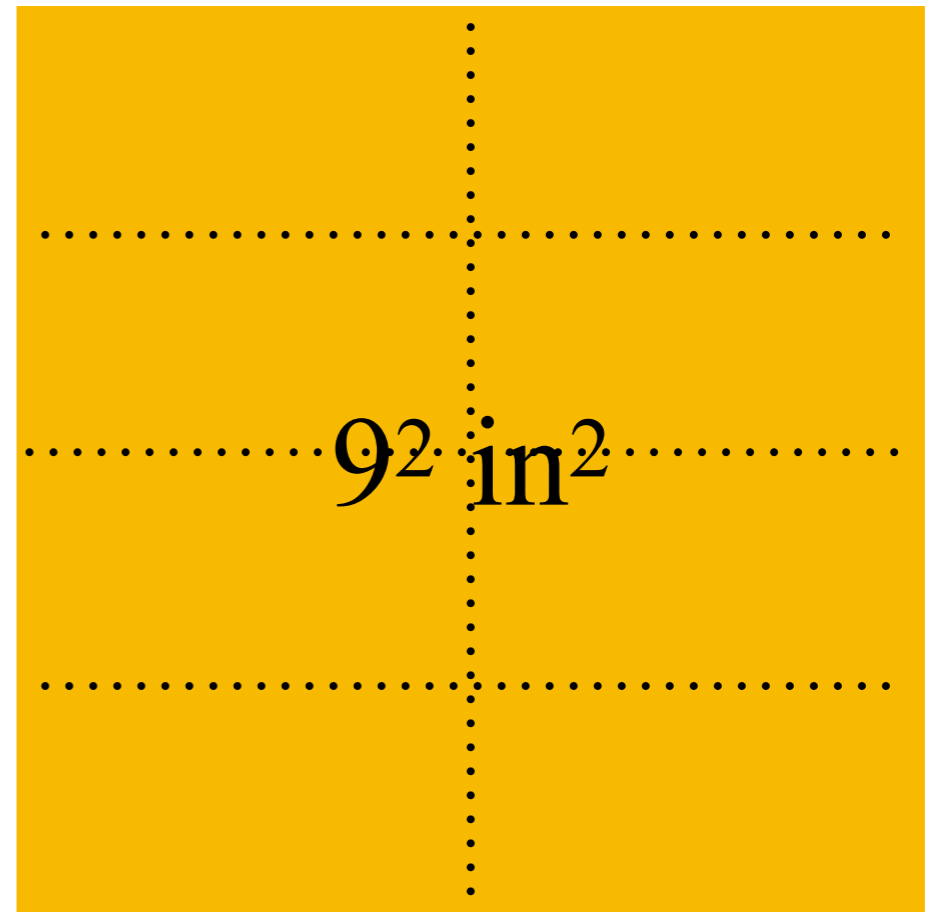
9 in

9^2 in^2

$$9\,x^2 = 9^2 \qquad x^2 = 9 \qquad x = 3$$

Square Pizzas:
How to divide up a 9 inch square pizza equally among 8 people?

Guess!

9^2 in^2

9 in

Sometimes algebra is unnecessary!

Round Pizzas:

How to divide up a 9 inch *diameter* pizza equally among 9 people?

First cut…

Second cut at θ to first cut…

…and so on…

$9\theta = 360º$

$\theta = 40º$

9 in

θ

θ