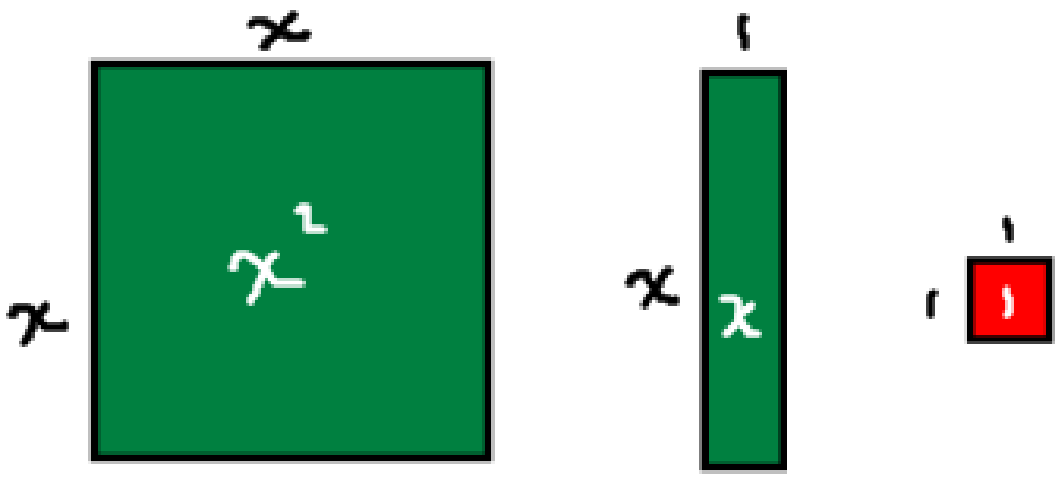
Algebra Tiles



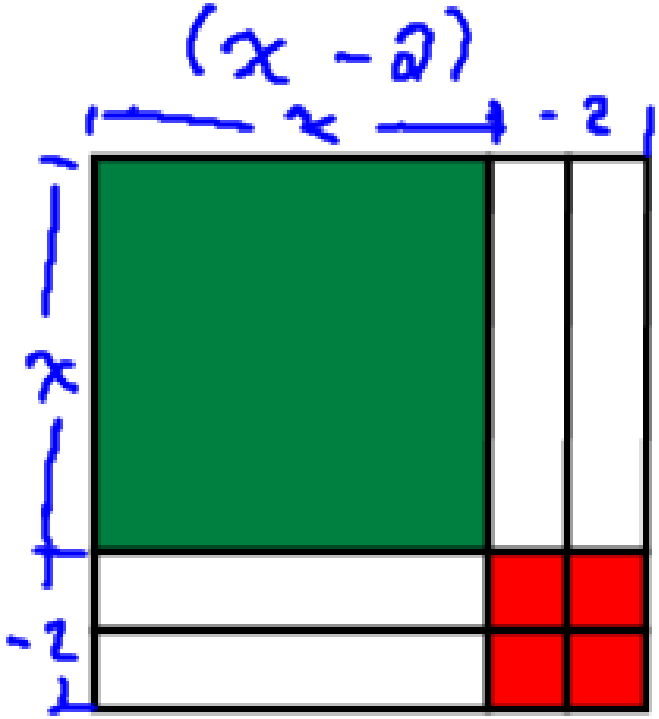
$\text{Area} = x^2 + x + 1$

*Textbook
- yellow - positive
- red - negative

*ours
green/red - positive
white - negative

Formula booklet
- shaded (gray) - positive
- white - negative

What is the area of this shape?



4 cm

3 cm | 12 cm²

area = 12 cm²

area = 3 cm x 4 cm

length x width

Area: $x^2 - 4x + 4$

* I can write the area as polynomial

many terms

OR as product of length & width.

Area = $(x-2)(x-2)$

width x length

$x^2 - 4x + 4 = (x-2)(x-2)$

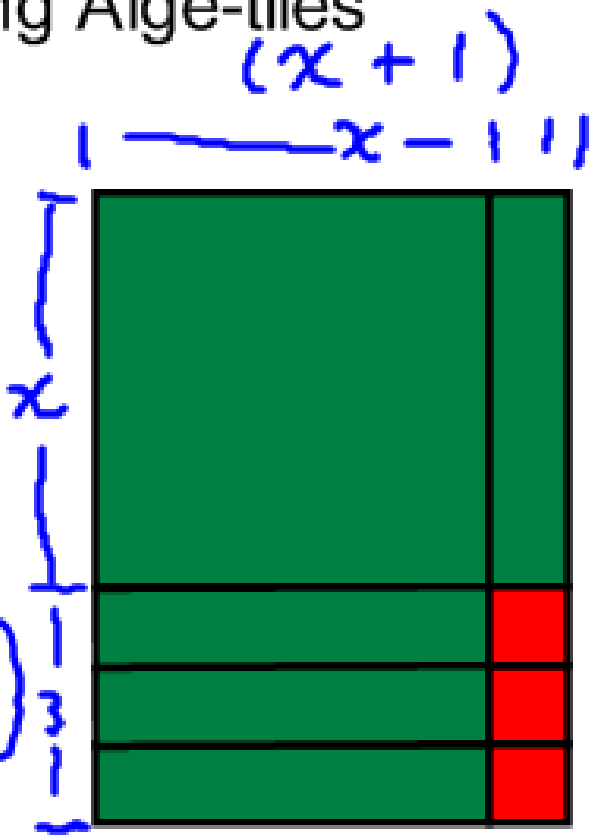
polynomial

factors

Write the polynomial as factors using Alge-tiles

$x^2 + 4x + 3$

* make a rectangle

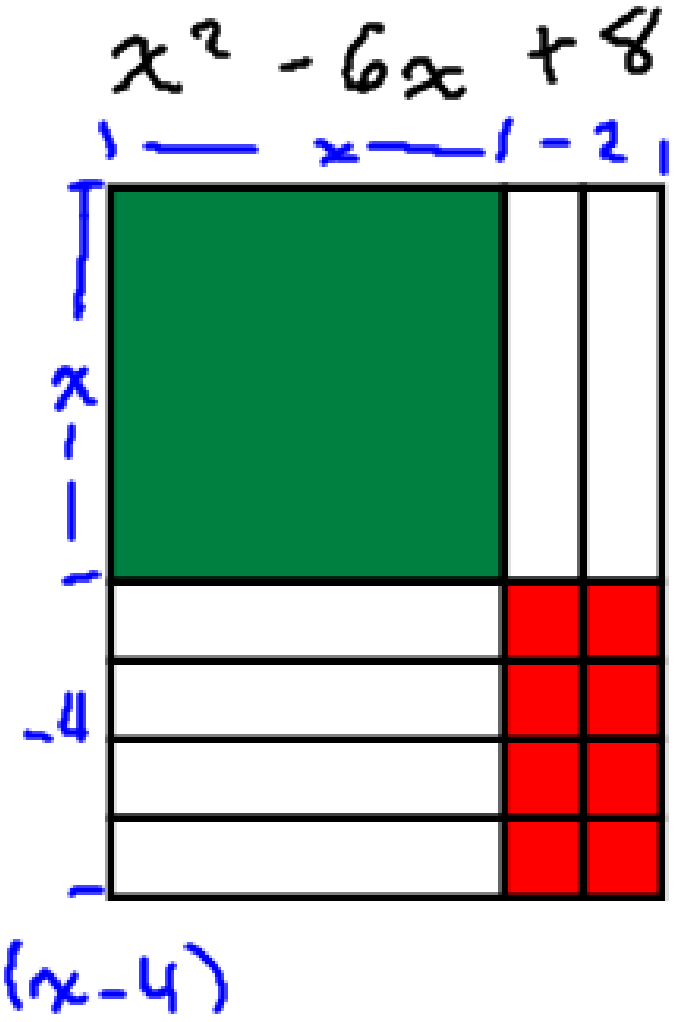


Factor the polynomial means write as a product (length x width)

Area:

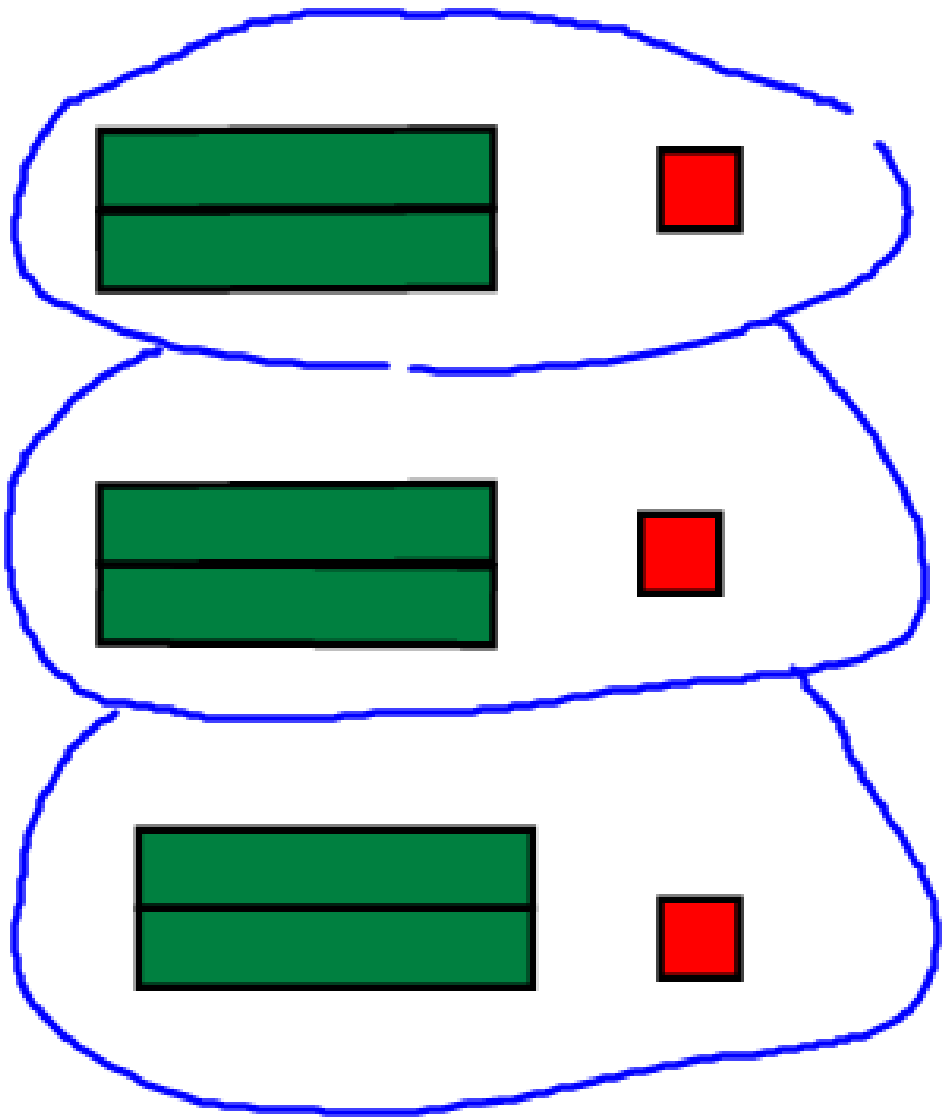
$x^2 + 4x + 3 = (x+1)(x+3)$

Again...



$$x^2 - 6x + 8 = (x-2)(x-4)$$

$6x + 3 = 3(2x + 1)$



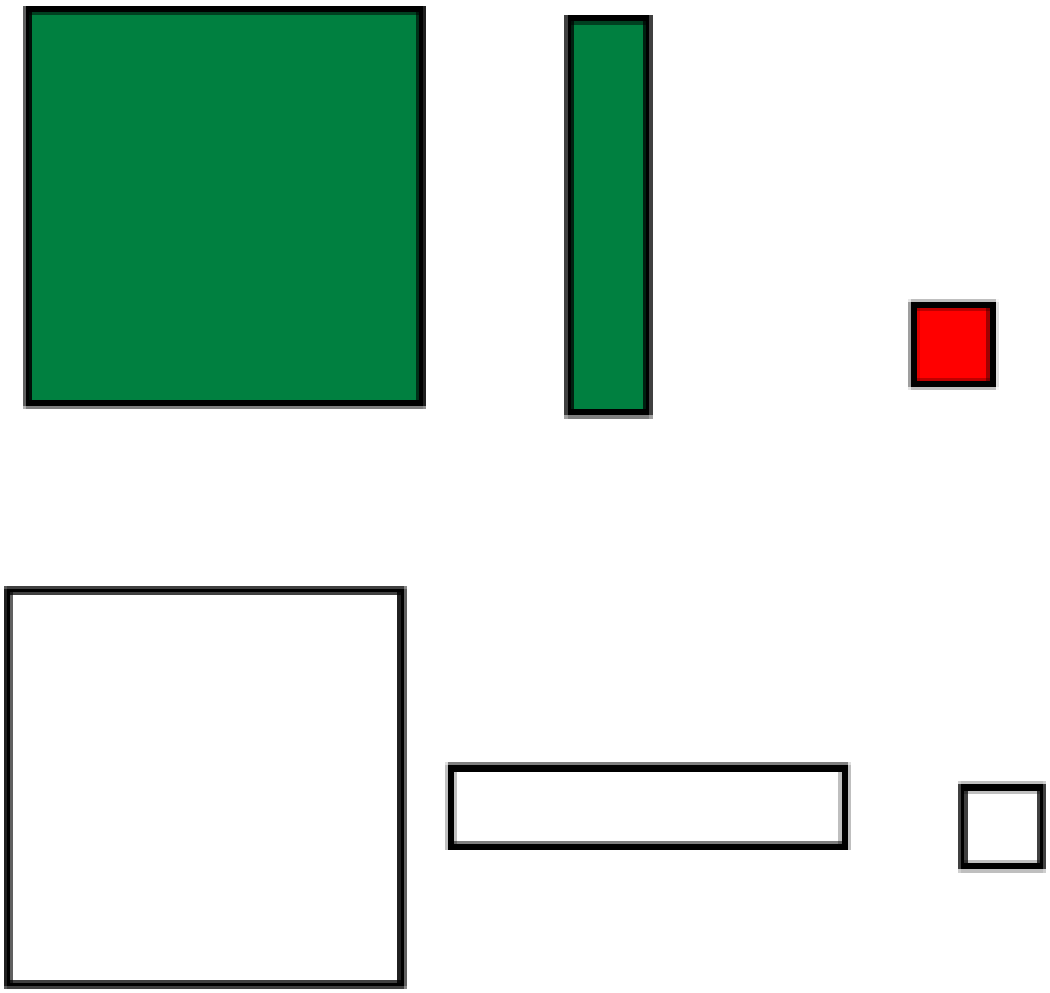
$2x + 1$

3 groups

* check

$6x + 3 = 3(2x + 1)$ ✓

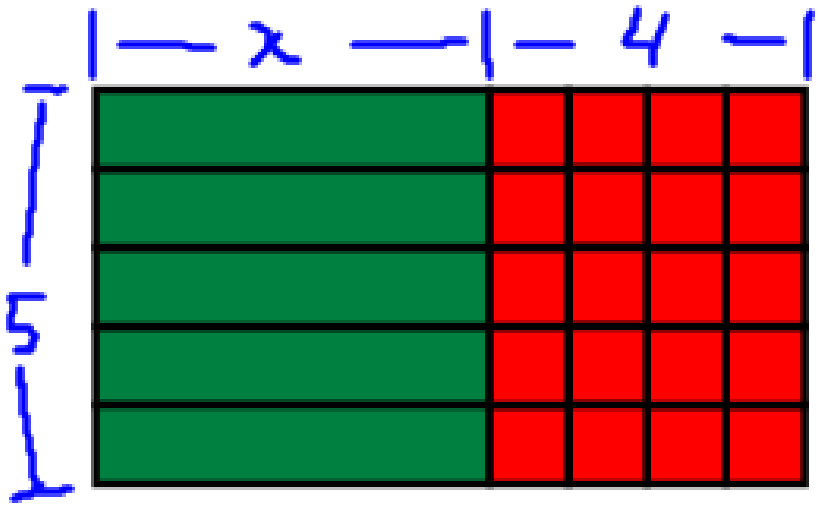
$6x + 3$ ✓



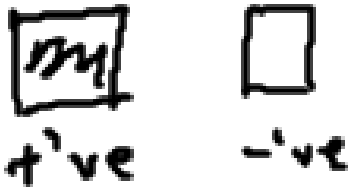
Find GCF....

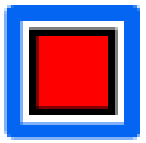
5x + 20

Use algebra tiles to show



5 (x + 4)





p. 158 #1, 2

p. 155 #4, 7, 9, 11

yellow
positive

red
negative

Using GCF to write as factors

Factor:

Factor:

More common factoring:

Do p. 155 - #4-14