Lewis **Area Models with Distributive Property** Key

Find the Area of this rectangle. **Area (formula) =** length x width

6ft

24 ft

Area = 144 ft²

2 24
x 6
144

Now using the Distributive Property, how would finding the area differ?

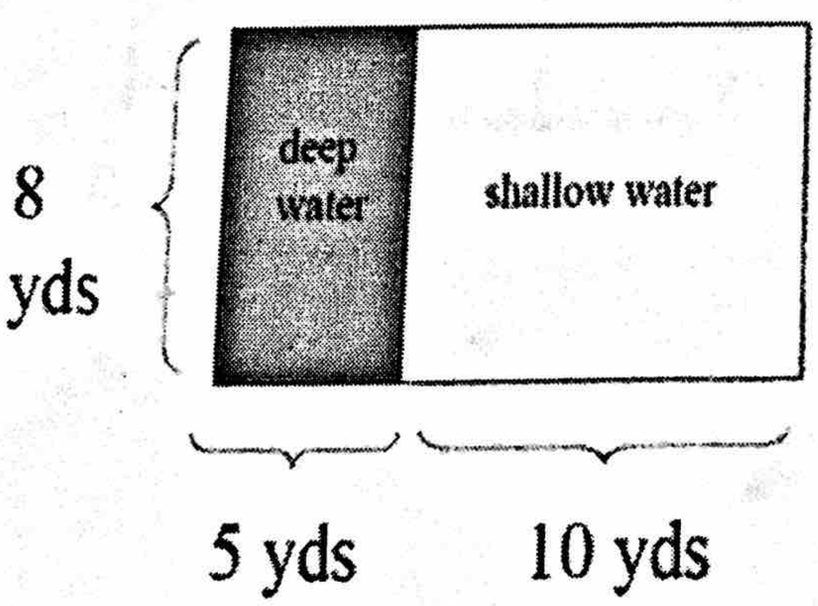
6ft

20ft 4 ft

How would I write this problem using the Distributive Property?

6(20+4)

A swimming pool has a shallow end and a deep end. Find the surface area of the pool.



40
+80
120

What is the Surface Area of the Pool?

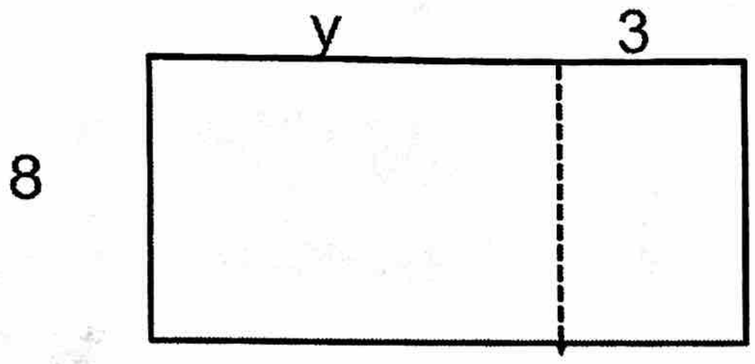
120 yd²

Write an expression, using the distributive property, to represent the area of the pool.

8(5+10)

Use the Distributive Property to represent the Area Model

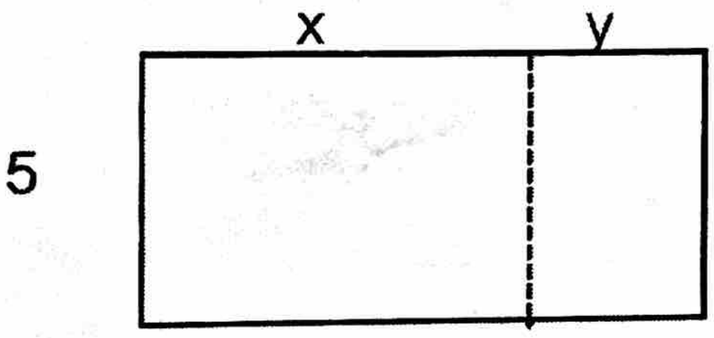
Examples:



Expression: 8 (y + 3)

Simplify using the Distributive Property:

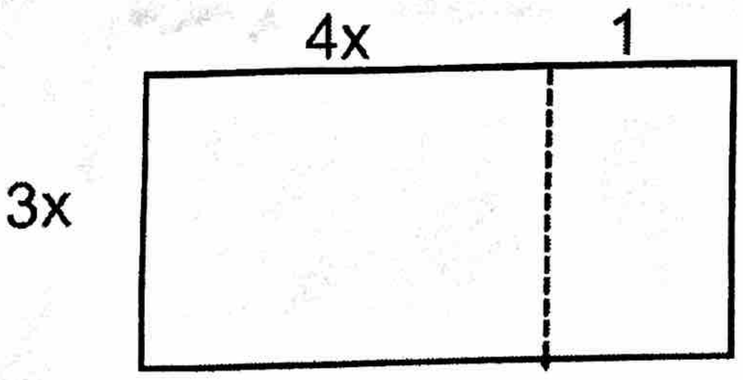
8y + 24



Expression: 5 (x + y)

Simplify using the Distributive Property:

5x + 5y



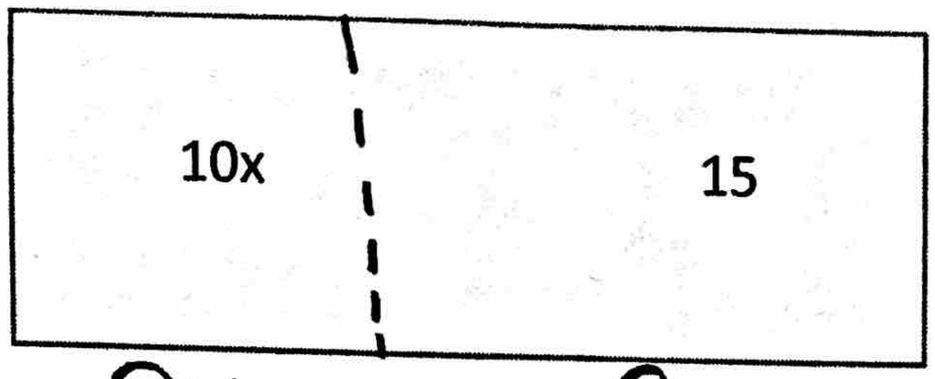
Expression: 3x (4x + 1)

Simplify using the Distributive Property:

$12x^2 + 3x$

Find the GCF to create an equivalent expression.

5



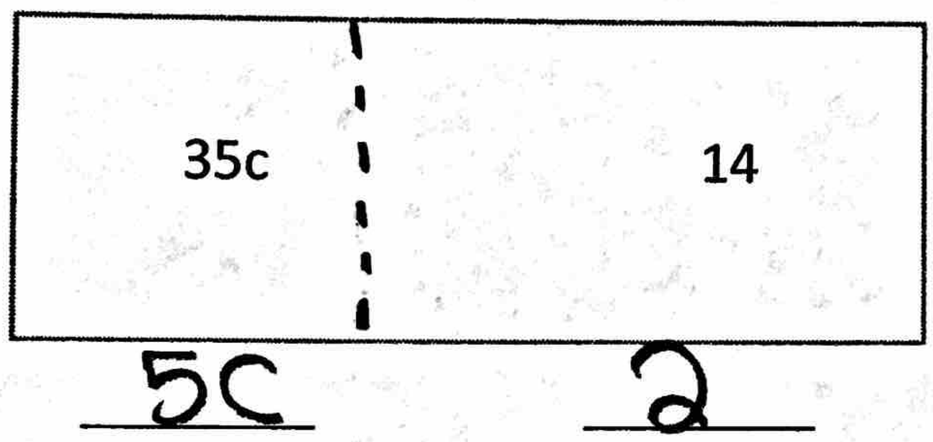
Steps:

1) Find the GCF. This is your width. (They may have a variable in common too)
2) Divide both terms by the GCF. This is your length.

Have the students add the lines

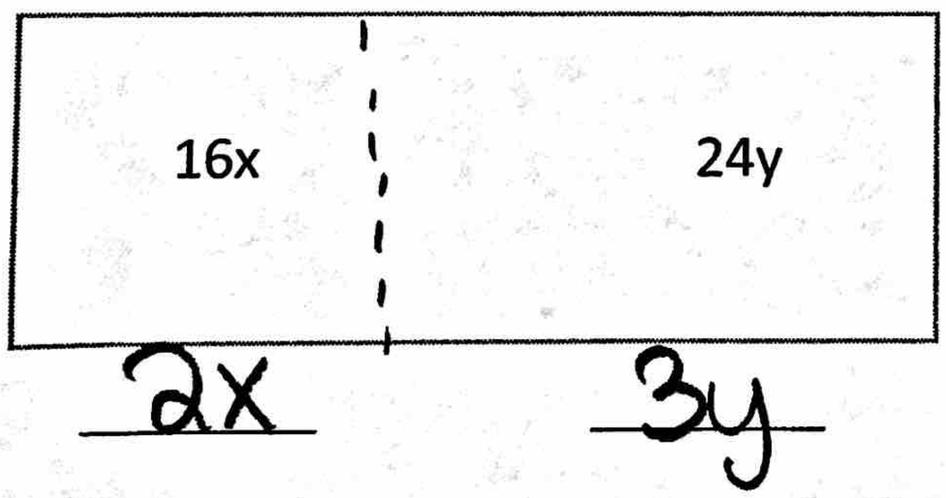
Examples:

7



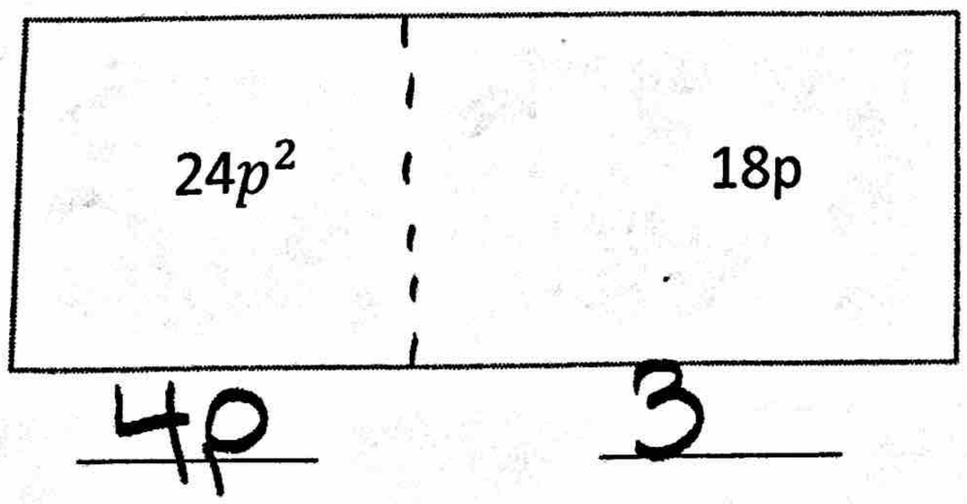
Expression: 7(5c + 2)

8



Expression: 8(2x + 3)

6p



Expression: 6p(4p + 3)