

Algebra I

2-5

The Distributive Property

Distributive Property - $a(b+c) = ab+ac$

Why is the distributive property important?

The distributive allows ^{us} to get rid of the parentheses when we cannot do what is inside them.

Simplify. (pg 67)

1) $8(30+1)$

$240+8$ or $8(31)$
 248 248

9) $4(9.5)$ or $4(9+\frac{1}{2})$

38.0 $36+2$
 38

13) $30 \cdot 18 + 70 \cdot 18$

$18(30+70)$
 $18(100)$
 1800

For each expression, write an equivalent expression without parentheses.

25) $3(x+2)$
 $3x+6$

35) $(2x+3y)5$
 $5(2x+3y)$
 $10x+15y$

Simplify.

43) $2a+b+5a+3b$
 $7a+4b$

55) $2+(x+3)5$
 $2+5(x+3)$
 $2+5x+15$
 $5x+17$

Try on your own!

61) $9(a+b)+4(3a+2b)$

$9a+9b+12a+8b$
 $21a+17b$

$21a+17b$
 $20a+17b$

* $3-2(3x-4)$

$3-6x+8$
 $-6x+11$

$7+6x$
 $-5-6x$
 $5-6x$
 $-5+6x$
 $7-6x$

pg 67

2-66 even