Accelerated Math Notes (Lessons 7-3 and 7-4) Adding and Subtracting Linear Expressions

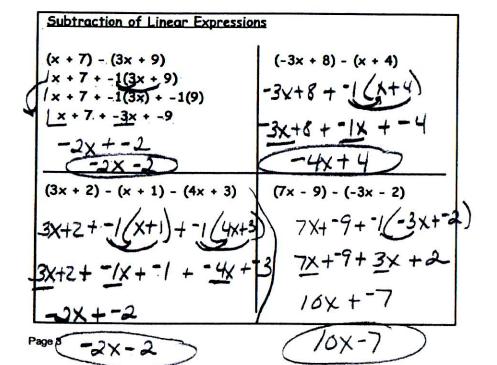
A linear expression is an algebraic expression in which the variable is raised to the first power.

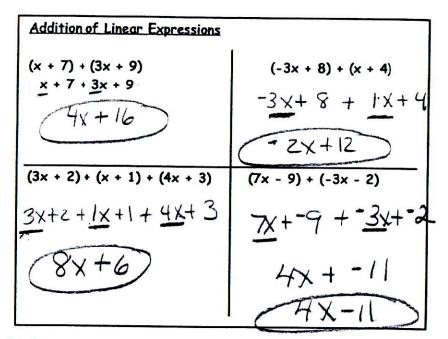
Linear expression

NOT a Linear expression

$$-3x^{2}+x-7$$

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You may drop parentheses if they have these things in front of them: (x + 2)

*nothing

X+2

*addition sign

(x + 2) + (x + 8)

You may NOT drop parentheses if they have these things in front of them:

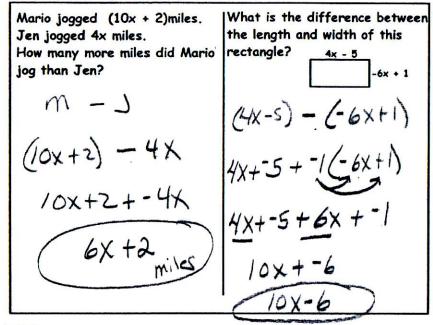
*subtraction sign

(x + 9) - (x + 2)

X+9 + -1(X+2)

*A number that is being multiplied by the parentheses

$$3(9x + 7) + 2(x + 4)$$



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The expression 2m-1 represents the distance driven by the Easton family on Day 1 of a 3-day family vacation. The expression 5m + 6 represents the total miles driven on the vacation. Write an expression that represents the miles driven on Days 2 and 3. Then simplify the expression.

$$D_1 + D_2 + D_3 = Total$$
 $T - O_1$
 $(5m+6) - (2m-1)$
 $5m+6+-1(2m+-1)$

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The expression (6x + 36) represents the total amount of money the soccer team earned from selling x T-shirts. If their expenses were (2x - 3) dollars, write a simplified expression to represent their profit.

$$Prof: + = Money - Expense
Earnor (6x+36) - (2x-3)
 $6x+36+-1(3x+-3)$$$

$$\frac{5m+6+-2m+1}{3m+7}$$

6x+36+ -2x+3 (4x+39 dollars)