3.1A Algebraic Expressions - Combining Like Terms

algebraic expression - an expression (no equal sign) that may contain numbers, operations (+, -, x, ÷) and symbols

terms - parts of an expression separated by addition i.e. $3x^2 + 2x + 5$

like terms - terms that have the same variables raised to the same exponent

constant - a terms with only a number, all constants are like terms

Identify the terms and the like terms. Ex: 9x + 2 + 7 + x

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terms: 9x,-2,7,-x like terms: 9x 2-x -227

Ex: $z^2 + z + 3z^2 + z + 5z^2$ terms: 22, 2, -322, 2, -522

like terms: 22 2-322 2-522 2 2 2

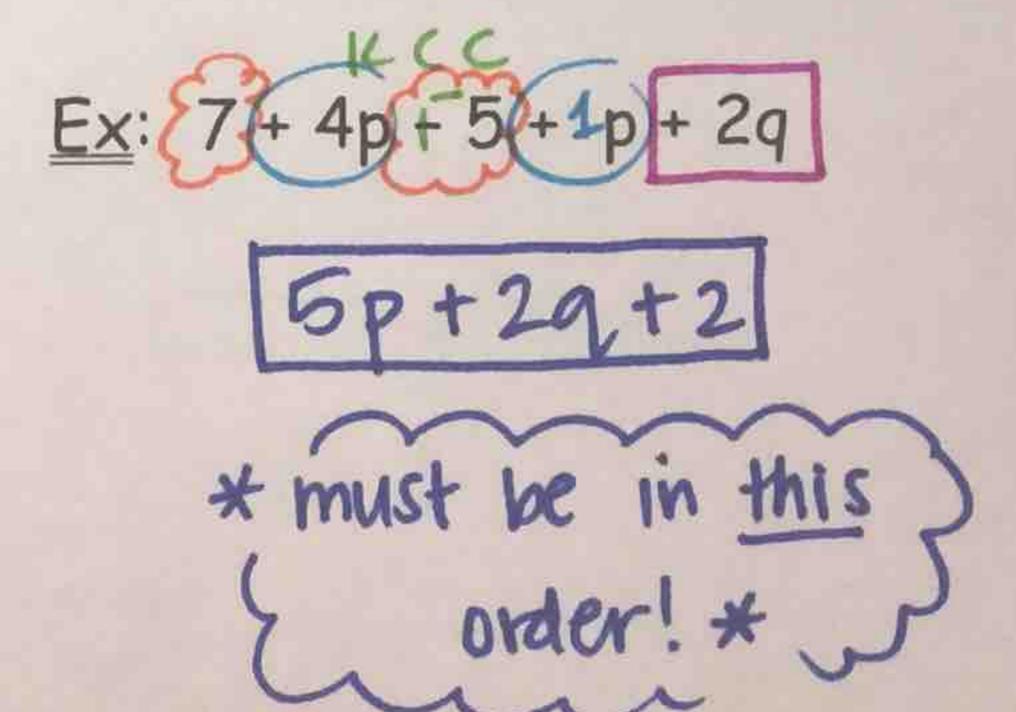
simplest form - an expression that has no like terms and no parentheses because it has been simplified

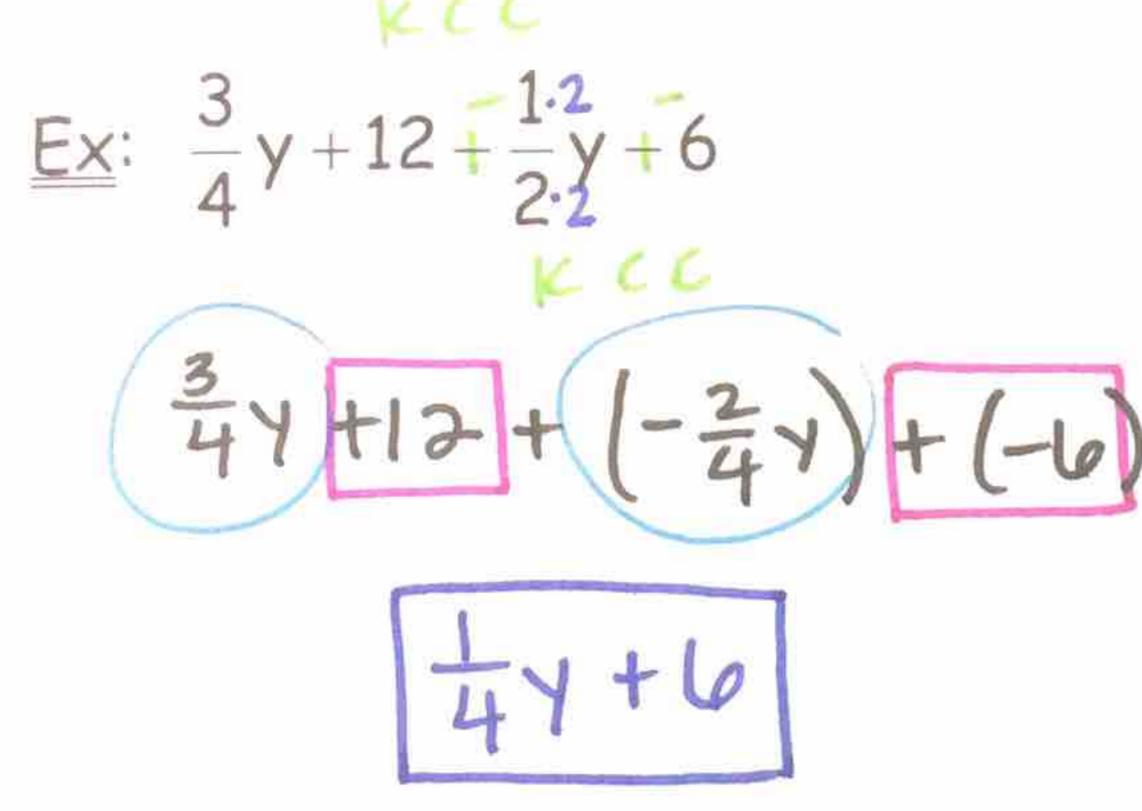
- take away coefficient of 1: 1x → x
- clean up double signs: + = -
- · alphabetical order
- in order from highest exponent to lowest

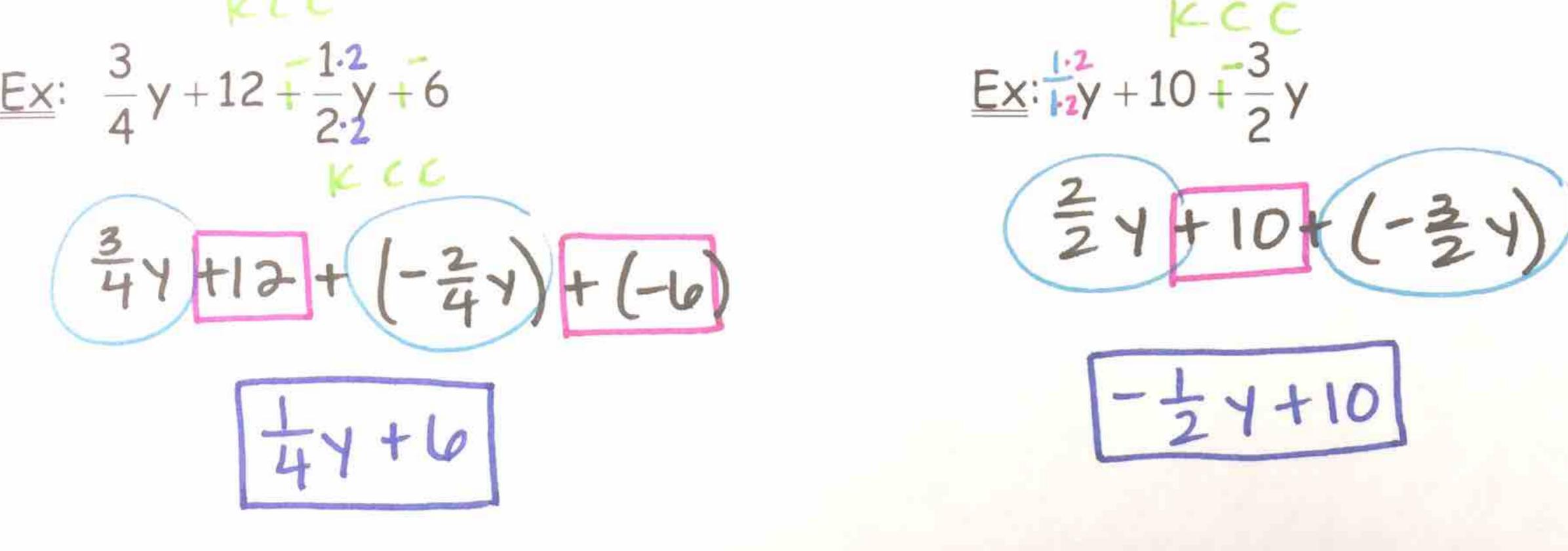
coefficient - the number in front of a variable

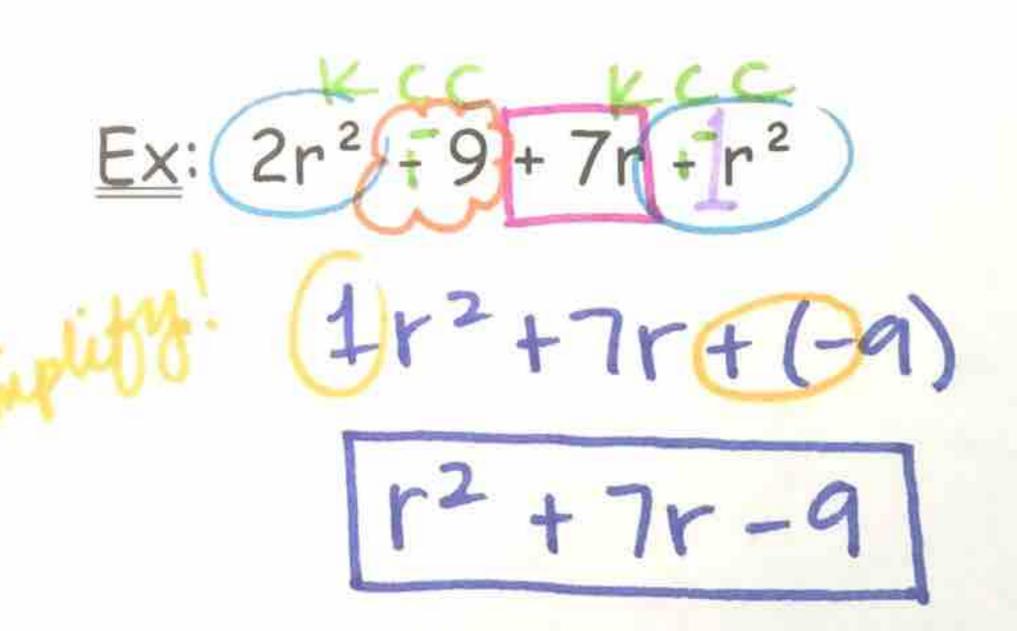
Ex:
$$5x \rightarrow 5$$
 Ex: $y \rightarrow 1$

$$Ex: y \rightarrow 1$$











Each person in a group buys a ticket, medium drink, and a large popcorn. Write an expression in simplest form that represents the amount of money the group spends at the movies. Interpret the expression.

Ex: How much would 4 people attending the movies spend altogether?

Try These:

Simplify.

(1)
$$14 - 3z + 8 + z$$
 $-27 + 22$

(3)
$$\frac{3}{8}b - \frac{3}{4}b$$

(2)
$$2.5x + 4.3x - 5$$
 $6.8x - 5$

already simplified