	Simplify equations
1	Keep answer in improper fraction (don't divide to get a decimal)
2	variables can be on any side of the =
3	when multiplying or dividing, do it to every term
4	when adding or subtracting, do it to each side
5	combine like terms
6	undo fractions by mulitplying by reciprical
7	clear fractions by multiplying every term by the common denominator
8	clear decimals by multiplying by a multiple of 10
9	Factor before multiplying or dividing

8

Properties	Addition	Multiplication
Identity	$3 + 0 = 0$	$5 \times 1 = 5$
Communitive (switch)	$17 + 46 + 23 = 17 + 23 + 46$	$15 * 17 * 2 = 15 * 2 * 17$
Associative (group)	$(17 + 23) + 46$	$(15 * 2) * 17$
Distributive	$3(2.95) \rightarrow 3(3 - .05)$	

7

Order of Operations		
Grouping	$(\square), [\square], \{\square\}, \lvert\square\rvert x^{2+3}, \frac{2+7}{3}, \sqrt[3+2]{2+3x},$	
Exponents	$3 \times 4^2 = 48$	
Multiply-Divide	left to right	$24 \div 4 \times 2 = 12$
Adding - subtracting	left to right	$16 - 8 + 4 = 12$

Real Numbers	
Rational $\frac{integer}{integer}$	Irrational: in decimal form would be non-repeating and continues forever
Integers ... -3, -2, -1, 0, 1, 2 ...	
Whole 0, 1, 2, 3, 4	
Natural 1, 2, 3, 4 ...	

Variable: symbol or letter representing a changing number
term: variable with a coefficient
expression: one or multiple terms
equation: expression = expression
literal equation: equation with more than one variable