

Quick Review Sheet Math 0301

Order of Operations

- 1) () [] | |
- 2) Exponents
- 3) Multiply or Divide Left to Right
- 4) Add or Subtract Left to Right

Adding and Subtracting

Signed Numbers

Same signs – add and keep sign

Different signs – subtract and keep “bigger” sign

- - makes +

Fractions

Must have COMMON DENOMINATOR

Multiplying and Dividing

Signed Numbers

Negative and negative = positive

Negative and positive = negative

Fractions-NO LCD

To Multiply:

Reduce

Multiply tops

Multiply bottoms

To Divide:

Change division to multiplication by flipping the second fraction

Follow Multiply Rules

Simplify: combine like terms

Solve Equations:

- 1) Eliminate all grouping symbols
- 2) Clear all fractions/decimals and combine like terms (multiply by LCD)
- 3) Gather the variables
- 4) Isolate the variable
- 5) Solve for the variable
- 6) Check the solution

Formulas:

Perimeter (of a rectangle): $p = 2l + 2w$

Solving Inequalities:

Similar to equations, but for step 5, if you divide by a negative, flip the inequality

For solutions:

Graph: 

Set Notation: uses (or [and) or]

Interval Notation: {x | }

Graphing:

Slope Formula: $m = \frac{y_2 - y_1}{x_2 - x_1}$

Point-Slope Form of a Line:

$$y - y_1 = m(x - x_1)$$

Slope-Intercept Form of a Line:

$$y = mx + b$$

Vertical Lines: $X = C$

slope is always undefined

Horizontal Lines: $y = C$

Slope is always zero

Parallel Lines: same slope

Perpendicular Lines: Slopes are negative reciprocals