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THE NEAT & PICKY RULES OF ALGEBRAIC FORMAT TO LIVE BY

Introduction of the Neat and Picky Rules



The Rules

1. Show each step in solving the equation. The solving action is clearly written under each equation. The result is your next equation line.
2. Write in a vertical arrangement so that your solution is the last line.
3. Equal signs must be lined up.
4. Balance you equation! Whatever you do to one side of the equation you must do to the other side.
5. The solution must be written with the variable on the left of the equal sign.
6. You must show a check! Substitute your solution to show how it works. Your answer will always be correct if the check works! Use ✓
7. Write neatly!



How It Helps

- Here are the neat and picky rules of algebra.
 - You will use these rules for the rest of your life, so remember them!
 - These rules are simple and easy to remember. They are used to help you organize your work better, and help you not make careless mistakes.
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The First rule



The First Rule

- Show each step in solving the equation. The solving action is clearly written under each equation. The result is your next equation line.
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What It Means

- You must show exactly what you did to solve the equation.
- Under each step, clearly show what it means.

ex: $5x-3=-13$

$$5x-3+3=-13+3$$

$$5x=-10$$

$$5x/5=-10/5$$

$$x=-2$$



Not $5x-3=-13$

$$x=-2$$



The Second Rule



The Second Rule

- Write in a vertical arrangement so that your solution is the last line.

What it Means

- Keep your problems lined up, position them vertically. (up and down, not side to side)
- This helps keep your paper organized, so you don't get confused.

Ex: $5x - 3 = -13$



$$5x - 3 + 3 = -13 + 3$$

$$5x = -10$$

$$5x/5 = -10/5$$

$$x = -2$$

Not,



$$5x - 3 = -13 = 5x - 3 + 3 = -13 + 3 = 5x = -10 = 5x/5 = -10/5 = x = -2$$

THE THIRD RULE



The Third Rule

- Equal signs must be lined up.

What it Means

- You must line the equal signs exactly and in a straight line.

- Ex: $(c/4)-3=17$

- $(c/4)-3+3=17+3$

- $c/4=20$

- $(c/4)4/1=20(4/1)$

-  $c=80$

Not: $(c/4)-3=$ 

$(c/4)-3+3=17+3$

$c/4=20$

$(c/4)4/1=20(4/1)$

$c=80$

The Fourth Rule



The Fourth Rule

- Balance your equation! Whatever you do to one side of the equation you must do to the other side.

What it Means

- Both sides must be equal at all times

- Ex: $6d - 45 = 63$

$$6d - 45 + 45 = 63 + 45$$

$$6d = 108$$

$$6d/6 = 108/6$$

$$d = 18$$

Not: $6d - 45 = 63$

$$6d - 45 + 45 = 63$$

$$6d = 63$$

$$6d/6 = 63$$

$$d = 63$$



The Fifth Rule



The Fifth Rule

- The solution must be written with the variable on the left of the equal sign.

The solution must be written with the variable on the left of the equal sign.

- ▣ You must put the variable on the left side of the equation and the answer on the right.

- ▣ Ex: $9w+3=39$

- ▣ $9w+3-3=39-3$

- ▣ $9w=36$

- ▣ $9w/9=36/9$

- ▣  $w=4$

- ▣

Not: $9w+3=39$

$9w \setminus 9+3-3=39-3$

$9w=36$

$9w/9=36/9$



$4=w$

The Sixth Rule



The Sixth Rule

- You must show a check! Substitute your solution to show it works. Your answer will always be correct if the check works! Use✓

What it Means

- Once you are done solving the equation, you get your answer, variable=number. You copy the original problem, then replace the variable with the number you said it was equal to. Then see if the expression adds up correctly.
- If it doesn't, you know you did something wrong, and can check.

- Ex: $9w+3=39$ $(4)9+3=39$ ✓

- $9w+3-3=39-3$

- $9w=36$

- $9w/9=36/9$

- $w=4$

-

-



Not: $9w+3=3$



$$9w+3-3=39-3$$

$$9w=36$$

$$9w/9=36/9$$

$$w=4$$

The Seventh Rule



The Seventh Rule

- Write neatly!

What it means

- You must write legible!
- If the teacher cannot read the answer, she marks it wrong.
- In math, always print!

Ex: $9w+3=39$ $(4)9+3=39$ ✓

$$9w+3-3=39-3$$

- $9w=36$
- $9w/9=36/9$
- $w=4$



Not: $9w+3=39$ $9(4)+3=39$ ✓

$$9w+3-3=39-3$$

$$9w=36$$

$$9w/9=36/9$$

$$w=4$$



Final Example

- Now we will show you a problem in which we will solve using the 7 rules.

- Ex: $34x + 33 = 135$ $34 * 3 + 33 = 135$

$$34x + 33 - 33 = 135 - 33$$

$$34x = 102$$

$$34x / 34 = 102 / 34$$

$$x = 3$$