Classify Infographics

made by Samir Key-Williams

Linear equation with one Solution

Definition:
A one solution equation has one valuable that has a unique value.

Examples:
- $3x+5=2x+8 \rightarrow x=3$
- $7x-4=2x-11 \rightarrow x=3$
- $5x+10=3x-2 \rightarrow x=-6$
- $9x-7=2x-20 \rightarrow x=\frac{27}{7}$

If the equation simplifies to something like $x=A$ where A is a real number, it's a one solution equation

$Ax+B=Bx+A$

Linear equation with infinite Solutions

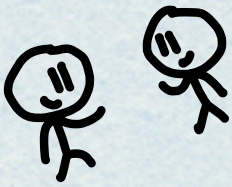
Definition:
A linear equation with infite solutions is an equation that is always true, even with the x value

Examples:
- $2(x+3)=2x+6$
- $5x+10=5(x+2)$
- $3(2x-4)=6x-12$
- $7x+14=7(x+2)$

An equation has infinite solutions when both sides simplify to the same equation

$A+B=A+B$

$A+B=A+B$

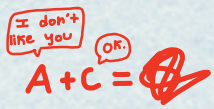


Linear equation with no Solutions

Definition:
A linear equation with no solution(s) is a equation that isn't true when simplified

Examples:
- $3(x+2)=3x+10$
- $5x+7=5x-2$
- $2(4x-3)=8x+5$
- $7x+9=7x+4$

An equation has no when the varible terms cancel each other out



$A+C=F$

Exercise Practice Questions!

Figure out if the four equations shown are one solution, infinite solutions, or no solutions

1. $4(x-2)+3=2x+7$
2. $6x+3=3(2x+1)$
3. $5(x-4)+10=5x-10$
4. $2(3x+5)=6x+10$

Don't forget to show ALL of your work!

Remember, this is a practice! Check and you won't know how to do it!

Answer Key