Equations, Inequalities and Solutions 1.5

Overview of problems

Example Set: A

1. An open sentence must have a variable?
2. An equation or inequality can be false?
3. Every equation has only one solution?
4. How many solutions does an inequality have?

Example Set: B

Determine if the equation is true, false or an open sentence:

1. $2(3+1) = 5+3$
2. $8[7(5-3)] = 100-12$
3. $x + 10 = 14$

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Overview of problems

Example Set: C

Check if the given number is a solution:

1. $6x + 1 = 14$, 2
2. $\frac{x}{5} = 4$, 20
3. $4x + 2 = 8 + 2x$, 3
4. $x - 9 \leq 5$, 15
5. $7 + 2y < 8 - y$, 6
6. $2x^2 - 6x + 4 = 0$, $1,2$

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Overview of problems

*Example Set: A -**ANSWER KEY***

1. An open sentence must have a variable? True
2. An equation or inequality can be false? True
3. Every equation has only one solution? Depends, some equations have many solutions or none
4. How many solutions does an inequality have? Infinite many

*Example Set: B- **ANSWER KEY***

Determine if the equation is true, false or an open sentence:

1. $2(3+1)=5+3$ True equation
2. $8[7(5-3)]=100-12$ False equation
3. $x+10=14$ Open sentence

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*Example Set: C-**ANSWER KEY***

Check if the given number is a solution:

1. $6x + 1 = 14$, 2 Not a solution

2. $\frac{x}{5} = 4$, 20 Solution

3. $4x + 2 = 8 + 2x$, 3 Solution

4. $x - 9 \leq 5$, 15 Not a solution

5. $7 + 2y < 8 - y$, 6 Not a solution

6. $2x^2 - 6x + 4 = 0$, $1,2$ Solution