



Solve the equation. Describe the number of solutions (one, none or infinitely many).

$$4x + 6 = 3x + 6 + x$$



When Kyra solved an equation, she ended up with  $x = 0$ . She stated that there was no solution. Do you agree with Kyra? Explain.



Solve the equation. Describe the number of solutions (one, none or infinitely many).

$$2(x + 5) + 1 = 2x + 11$$



The solution to the equation shown is  $x = 3$ . What is the value of  $m$ ?

$$\frac{2}{3}x + m = x + 5$$



What is the solution to the equation?

$$2.8x + 7 = 1.4(2x + 10)$$



Write a number into each box to create an equation that has no real solutions.

$$-2(x + 3) + 5 = \square x + \square$$



Solve the equation. Describe the number of solutions (one, none or infinitely many).

$$9x - 3 = 6x$$



The solution to the equation shown is  $x = -6$ . What is the value of  $p$ ?

$$5x - 4 = p + 4$$



Write a number into each box to create an equation that has infinitely many solutions.

$$4(x + 3) + 1 = \square x + \square$$



Solve the equation. Describe the number of solutions (one, none or infinitely many).

$$\frac{1}{2}x + 7 = 4x + 21$$



1. Infinitely many solutions.
2. No. Zero is a valid value for  $x$ . If she had ended with an equation which wasn't true there would be no solution.
3. Infinitely many solutions.
4.  $m = 6$
5. No solution.
6.  $-2$  and any number besides  $-1$
7. One solution;  $x = 1$
8.  $-38$
9. 4 and 13
10. One solution;  $x = -4$



**PEEK SHEET**

*Infinitely many  
solutions.*



## **PEEK SHEET**

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**PEEK SHEET**



$$m = 6$$

**PEEK SHEET**



No solution.

**PEEK SHEET**



**PEEK SHEET**

-2 and any  
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-1



**PEEK SHEET**

One solution;

$$x = 1$$



-38

**PEEK SHEET**



4 and 13

**PEEK SHEET**



One solution;

$$x = -4$$

**PEEK SHEET**