

## Solving Linear Equations in One Variable

<b>Quick Review</b>		
Equation	An equation is a statement that two quantities are equal	
Properties	You can add (or subtract) the same quantity to both sides of an equation. After all, both sides are equal in value.	If $4x - 3 = 11$ then $4x - 3 + 3 = 11 + 3$
	You can multiply (or divide) the same quantity to both sides of an equation. After all, both sides are equal in value.	If $4x = 14$ then $4x/4 = 14/4$ .
Solving	Isolate the unknown by using the above properties.	$2x + 3 = 5x - 6$ then we can subtract $2x$ from both side and add 6 to both sides. We get $9 = 3x$ . Divide both sides by 3 to get $x = 3$ .

### Problems

Solve each of the following equations.

1.  $4x + 5 = 9$

2.  $\frac{3}{4}x = 12$

3.  $\frac{1}{2}x - 3 = 5$

4.  $3x - 7 = x + 5$

5.  $\frac{5}{4}x = -25$

6.  $4 - x = 15$