



Solving One-Variable Equations and Inequalities
Independent Practice

1. Solve the equation $2x - 6 = 4x + 4$ using symbols and pictures.

Symbolic	Tiles (Pictorial Representation)
$2x - 6 = 4x + 4$	



Solve each equation below.

2. $x - 7 = -13 - x$

5. $3x - 4.6 = 0.5x + 26.3$

3. $5x + 2 = 2x + 67.4$

6. $6x - 4 = \frac{1}{4}x - 88$

4. $\frac{2}{5}x + 5 = 8 - x$

7. $7x - 6 = 3.5x + 100.75$



For questions 8 – 10 use the situation below.

The measure of an exterior angle of a triangle is $(3x + 60)^\circ$. One remote interior angle has a measure of $(5x)^\circ$ and the other remote interior angle has a measure of 20° .

8. Write an equation that could be used to solve for x .

9. Solve the equation.

10. Determine the measure of each angle.

For questions 11 – 13 use the situation below.

Two parallel lines are cut by a transversal. The measures of two corresponding angles are $(8x + 12)^\circ$ and $(5x + 36)^\circ$.

11. Write an equation that could be used to solve for x .

12. Solve the equation for x .

13. Determine the measure of each angle.



For questions 14 – 15 write an inequality that could be used to answer the question being asked.

14. Two thirds of a number decreased by 12 is greater than or equal to three times the number decreased by 40. What is the number?

15. Tawanda wants to open an online checking account. Bank A charges a monthly fee of \$22 each month plus \$0.75 for every online payment. Bank B charges a monthly fee of \$32 each month plus \$0.55 for every online payment. What is the maximum number of online payments that Tawanda can make in a month and have the cost at Bank A be less that the cost at Bank B?

For questions 15 – 16 write a real-world problem that you could use the given equation to solve.

16. $90 + 9x = 50 + 13x$

17. $710 - 35x = 570 - 25x$

