

Section 1.3 (Solving Equations with Variables on Both Sides): Part I

1) $4x - 20 = -6x$
 $x = 2$

2) $20 - 4x = -6x$
 $x = -10$

3) $6x - 9 = 21 + 3x$
 $x = 10$

4) $6 - 9x = 21 + 6x$
 $x = -1$

5) $5 - 2x = x - 10$
 $x = 5$

6) $10 - 2x - 4 = x + 6$
 $x = 0$

7) $2(x - 8) = 6 + x$
 $x = 22$

8) $2(x - 19) = 6(7 + 2x)$
 $x = -8$

9) $\frac{1}{2}(8x - 10) = 5 - x$
 $x = 2$

- 10) Sam had three bags of cookies. Pam had two bags of cookies and ten extra cookies. All of the bags had the same number of cookies in them. Pam was sad that Sam had more cookies than she did. So, Sam ate two of his cookies, and correctly said, "Now, we have the same number of cookies!" Pam was mad, but couldn't argue with Sam's logic. How many cookies were in each full bag?

Equation: $3x - 2 = 2x + 10$

Solution: 12 cookies