# *Distributive Property Equations*

**Solve each equation.  Show <u>all</u> steps.  Show your check.**

1.  $7(x - 2) = 28$

2.  $-8(3 + 5a) = 176$

3.  $5(n + 3) + 5 = -25$

4.  $2v + 3(8 - v) = -16$

5.  $6(3a - 2) + 5a = 57$

6.  $2(8x + 4) + 3 = -85$

7.  **17 times the sum of a number $n$ and 31 is 357.**

    Write an equation to represent the situation.  Then, distribute and solve to find the mystery number $n$.

8.  **The perimeter of an equilateral triangle is 27, after each of the sides is increased by 2 units.**

    If $S$ is the length of the side of the original triangle, write an equation for the new perimeter in terms of $S$. Then, distribute and solve to find the length of the side of the original triangle $S$.