

Challenge Practice

For use with pages 130-136

Solve the equation. Check your solution.

1. $11 - 2x = 5(x - 5) + 15$
2. $23a + 17 = 12(5 + 4a) - 18$
3. $7(m - 5) = 15(3 - m) + 2m$
4. $14v - 3(6 - v) = 8(v - 9)$
5. Copies at the local library cost \$.15 each. A new copier costs \$200 and it costs \$.02 to make a copy. How many copies would have to be made for the cost of making your own copies to be equal to the cost of copying at the library?
6. A smoothie at a local ice cream stand costs \$2.25. You can buy a smoothie maker for \$50 and buy the ingredients at a cost of \$1 for each smoothie. How many smoothies would have to be made for the cost of the ice cream stand smoothies to equal the cost of the smoothies made at home?
7. Consider the equation $12x + a = 4(3x - 8)$. For what value(s) of a does the equation have a solution?
8. Consider the two figures below. For what value of x are the areas of the figures the same? The figures are composed of triangles and rectangles.

