

LESSON
2.5**Challenge Practice***For use with the lesson "Solve Equations with Variables on Both Sides"*

1. For what value of a is $a(x - 5) = 9x - 25 - 2x - 10$ an identity?
2. For what value of b is $2x - bx - 3 = b(2x - 3) - 13x + 12$ an identity?
3. For what value of c is $2(cx + 12) = 3(cx + 8)$ an identity?
4. For what value of d is $d(dx + 1) = -4dx - 2d - 12$ an identity?
5. Find the area of a rectangle whose perimeter is 34 inches and whose width is two more than twice the length.
6. Find the area of a rectangle whose length is 6 inches less than 5 times the width and whose perimeter is 8 inches more than twice the length.
7. Find the area of a rectangle whose length is one-third of the perimeter, whose width is one-half of the length, and whose perimeter is 60 inches.
8. Find the length of a rectangle which when cut in half has an area of 300 square inches and whose width is one-sixth of the length.