**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Per:\_\_\_\_\_\_\_\_\_\_\_**

**Solving Equations with Variables on Both Sides**

**Worksheet 164**

**Solve each equation, then check your solution.**

**1.**  5*x* – 3 = 13 – 3*x* **2.** −4*c* – 11 = 4*c* + 21 **3.** 1 – *s* = 6 – 6*s*

**4.** 14 + 5*n* = −4*n* + 17 **5.**  **6.**

**7.** 3(−2 – 3*x*) = −9*x* – 4 **8.** 4(4 – *w*) = 3(2*w* + 2) **9.**

**10.** 9(4*b* – 1) = 2(9*b* + 3) **11.** 3(6 + 5*y*) = 2(−5 + *y*) **12.**

**13.** 6 + 2(3*j* – 2) = 4(1 + *j*) **14.** −5*x* – 10 = 2 – (*x* + 4) **15.**

**16.** 1.4*f* + 1.1 = 8.3 – *f* **17.**  **18.**

**19.**  **20.** 2(*a* – 8) + 7 = 5(*a* + 2) – 3*a* – 19

**21.** 3(*d* – 8) – 5 = 9(*d* + 2) + 1 **22.**

**23.** Two third of a number reduced by 11 is equal to 4 more than the number. Find the number.

**24.** Five times the sum of a number and 3 is the same as 3 multiplied by 1 less than twice the number. What is the number?

**25.** Tripling the greater of two consecutive even integers gives the same result as subtracting 10 from the lesser even integer. What are the integers?

**26.** The formula for the perimeter of a rectangle is *P* = 2*l* + 2*w*, where *l* is the length and *w* is the width. A rectangle has a perimeter of 24 inches. Find its dimensions if its length is 3 inches greater than the width.