Solve each equation. Check your answer.

See Probl

| | | |
|---|---|---|
| **14.** $7w + 2 = 3w + 94$ | **15.** $15 - g = 23 - 2g$ | **16.** $43 - 3d = d + 9$ |
| **17.** $5y + 1.8 = 4y - 3.2$ | **18.** $6a - 5 = 4a + 2$ | **19.** $7y + 4 = 3 - 2y$ |
| **20.** $5c - 9 = 8 - 2c$ | **21.** $4y - 8 - 2y + 5 = 0$ | **22.** $6(n - 4) = 3n$ |
| **23.** $2 - 3(x + 4) = 8$ | **24.** $5(2 - g) = 0$ | **25.** $2(x + 4) = 8$ |

Write an equation to solve each problem.

See Probl

**26. Bus Travel** Two buses leave Houston at the same time and travel in opposite directions. One bus averages 55 mi/h and the other bus averages 45 mi/h. When will they be 400 mi apart?

**27. Aviation** Two planes left an airport at noon. One flew east and the other flew west at twice the speed. After 3 hours the planes were 2700 mi apart. How fast was each plane flying?

**28. Geometry** The length of a rectangle is 3 cm greater than its width. The perimeter is 24 cm. What are the dimensions of the rectangle?

Determine whether the equation is *always*, *sometimes*, or *never* true.

See Probl

| | |
|---|---|
| **29.** $5x + 3 - 2x = 7x + 3$ | **30.** $2(5x + 4) = 10x + 6$ |
| **31.** $\frac{2}{3}x + 4 = 2x$ | **32.** $6x - 12 + 2x = 3 + 8x - 15$ |

**14.** Solve $P = 2(l + w)$ for $l$.

**15.** Solve $C_T = C_1 + C_2 + C_3$ for $C_2$.

**16.** Solve $V = lwh$ for $w$.

**#14,17,20,23,24, 28,30,32, 14,15,16**