5. $\frac{-2(b-4)}{4} = -12$

Strategy 1

$\left(\frac{4}{1}\right)\frac{-2b+8}{4} = -12(4)$

$-2b+8 = -48$

$-8 \quad -8$

$\frac{-2b}{-2} = \frac{-56}{-2}$

$b = 28$

OR

Strategy 2

$\frac{-2b+8}{4} = -12$

$\frac{-2b}{4} + \frac{8}{4} = -12$

$-\frac{1}{2}b + 2 = -12$

$-2 \quad -2$

$\left(\frac{2}{-1}\right)-\frac{1}{2}b = -14\left(\frac{2}{-1}\right)$

$b = 28$

6. $\frac{-12-4x+3}{-3} = -1$

$\frac{-9-4x}{-3} = -1$

## Strategy 1

$$\left(\frac{-3}{1}\right)\frac{-9-4x}{-3} = -1(-3)$$

$$-9-4x = 3$$

$$+9 \quad +9$$

$$\frac{-4x}{-4} = \frac{12}{-4}$$

$$\boxed{x = -3}$$

## Strategy 2

$$\frac{-9-4x}{-3} = -1$$

$$\frac{-9}{-3} - \frac{4x}{-3} = -1$$

$$3 + \frac{4x}{3} = -1$$

$$-3 \quad -3$$

$$\left(\frac{3}{4}\right)\frac{4x}{3} = -4\left(\frac{3}{4}\right)$$

$$\boxed{x = -3}$$

## Word Problems In-Class

**Write an equation that represents the situation and the solve (answer the question).** Define your variable.

1. The sum (+) of Juanita's age and Sara's age is (=) 33 years. If Sara is 15 years old, how old is Juanita?

Juanita's age + Sara's age = 33

$X + 15 = 33$

$-15 \quad -15$

$X = 18$ years old

$X$ = Juanita's age

addition

2. Suppose you have shelled 6.5 lbs. of pecans, and you can shell pecans at a rate of 1.5 lbs. per hour. How many more hours will it take you to shell a total of 11 lbs. of pecans?

multiplication

$y$ = # of hours

equals

$1.5y + 6.5 = 11$

$-6.5 \quad -6.5$

$\frac{1.5y}{1.5} = \frac{4.5}{1.5}$

$y = 3$ hours

subtraction

3. Brendan withdrew $25 from his bank account at an ATM. The transaction slip said his balance was then $243.19. Write and solve an equation to find Brendan's previous balance.

total

$X$ = previous balance ($)

$X - 25 = 243.19$

$+25 \quad +25$

$X = \$268.19$

total

4. You are ordering tulip bulbs from a flower catalog. You have $14 to spend. Each bulb costs $0.75 plus $3.00 for shipping. Determine the number of bulbs you can order.

+

$a$ = # of bulbs

$.75a + 3 = 14$

$-3 \quad -3$

$\frac{.75a}{.75} = \frac{11}{.75}$

$a = 14\frac{50}{75}$

$a = 14\frac{2}{3}$

$.75\overline{)1400}$

$-75$

$650$

$-600$

$50$

14 tulip bulbs

5. Suppose you want to buy one pair of pants and several pairs of socks. The pants cost $24.95, and the socks are $5.95 per pair. How many pairs of socks can you buy if you have $50.00 to spend?

$X$ = # of pairs of socks

$5.95x + 24.95 = 50$

$-24.95 \quad -24.95$

$\frac{5.95x}{5.95} = \frac{25.05}{5.95}$

$X = 4$