Enrich

An Wang (1920-1990) was an Asian American who became one of the pioneers of the computer industry in the United States. In 1948, he invented a magnetic-pulse controlling device that vastly increased the storage capacity of computers. He later founded his own company, Wang Laboratories, and became a leader in the development of desktop calculators and word-processing systems.

In 1988, Wang received a special honor for his contributions to the advancement of the computer industry. To find out what the honor was, solve each equation. If the solution appears at the bottom of this page, write the variable on the line directly above the solution *each time it appears.* If you have solved the equations correctly, the variables will spell out the honor.

1. $3V = -24$

2. $\dfrac{R}{-3} = 2$

3. $-\dfrac{3}{8}M = \dfrac{3}{4}$

4. $\dfrac{S}{4} = -2.5$

5. $H - 1.3 = 4.7$

6. $-3.2D = -16$

7. $\dfrac{2}{3}F + 6.5 = 4.5$

8. $\dfrac{O}{1.5} = -8$

9. $\dfrac{W}{1.4} - 3.5 = 1.5$

10. $-\dfrac{1}{4}T = -2.5$

11. $-\dfrac{2}{5}I = 1\dfrac{3}{5}$

12. $\dfrac{5}{8}A - \dfrac{1}{2} = \dfrac{3}{4}$

13. $-\dfrac{4}{3}E - \dfrac{1}{6} = 3\dfrac{5}{6}$

14. $\dfrac{N}{-1.6} = -5$

15. $1.25 = 3.5 - \dfrac{9}{4}L$

$\overline{6}\ \overline{3}$　　　　　　$\overline{7}\ \overline{2}\ \overline{-10}$　　　　　　$\overline{8}\ \overline{2}\ \overline{-2}\ \overline{3}\ \overline{5}$

$\overline{10}\ \overline{-12}$　　　　　$\overline{10}\ \overline{6}\ \overline{3}$　　　　　$\overline{8}\ \overline{2}\ \overline{10}\ \overline{-4}\ \overline{-12}\ \overline{8}\ \overline{2}\ \overline{1}$

$\overline{-4}\ \overline{8}\ \overline{-8}\ \overline{3}\ \overline{8}\ \overline{10}\ \overline{-12}\ \overline{-6}\ \overline{-10}$

$\overline{6}\ \overline{2}\ \overline{1}\ \overline{1}$　　　　　$\overline{-12}\ \overline{-3}$　　　　　$\overline{-3}\ \overline{2}\ \overline{-2}\ \overline{3}\ \cdot$

Lesson 3 Problem-Solving Practice

Write Two-Step Equations

Define a variable. Then write and solve an equation to solve each problem.

1. CONSTRUCTION Carlos is building a screen door. The height of the door is 1 foot more than twice its width. What is the width of the door if it is 7 feet high?	**2. GEOMETRY** A rectangle has a width of 6 inches and a perimeter of 26 inches. What is the length of the rectangle?
3. EXERCISE Ella swims four times a week at her club's pool. She swims the same number of laps on Monday, Wednesday, and Friday, and 15 laps on Saturday. She swims a total of 51 laps each week. How many laps does she swim on Monday?	**4. SHOPPING** While at the music store, Drew bought 5 CDs, all at the same price. The tax on his purchase was $6, and the total was $61. What was the price of each CD?
5. STUDYING Over the weekend, Koko spent 2 hours on an assignment, and she spent equal amounts of time studying for 4 exams for a total of 16 hours. How much time did she spend studying for each exam?	**6. FOOD** At the market, Meyer buys a bunch of bananas for $0.65 per pound and a frozen pizza for $4.99. The total for his purchase was $6.94, without tax. How many pounds of bananas did Meyer buy?
7. HOME IMPROVEMENT Laura is making a patio in her backyard using paving stones. She buys 44 paving stones and a flowerpot worth $7 for a total of $73. How much did each paving stone cost?	**8. TAXI** A taxi service charges you $1.50 plus $0.60 per minute for a trip to the airport. The distance to the airport is 10 miles, and the total charge is $13.50. How many minutes did the ride to the airport take?