

## KEY

### Problem—Calculating Commissions

#### Problem

Some occupations are paid by hourly wage, some by salary, some by commission, and some by a combination of these. Jim and Joan have both been hired by two different companies. Jim has been hired at an hourly wage of \$7.50. Joan has been hired at an hourly wage of \$6.50, with a commission of 15% for any sales she makes over her target goal each week.

Use this information to answer the following questions:

1. If both Jim and Joan work 40 hours a week, what is their gross income for one month (assuming four weeks in a month)?  
Jim's gross income: \_\_\$1200.00  
Joan's gross income: \_\_\$1040.00
2. In the first week this month, Joan sold \$50 above her target sales. The second week, Joan sold \$90 above her target sales. The third week, Joan didn't make any money above her target sale goal. The fourth week, Joan sold \$60 above her sale goal.  
What is Joan's commission for this month? What is her gross income for this month?  
Commission: \_\_\$30.00  
Gross income: \_\_\$1070.00
3. How much in total sales above her target would Joan have to sell to equal (within \$1) Jim's gross income per month? Show your work and any formulas you created to solve this part of the problem.

**Answer: \$1066—Process will vary**

$$6.50(160) + .15x = 7.50(160)$$

$$1040 + .15x = 1200$$

$$.15x = 160$$

$$x = 1066.67$$

#### What will you need?

Calculators (if desired)

#### How will you be evaluated?

Answer key