**5.4 Employee Benefits Practice**

2. Roberto’s employer offers a sliding paid vacation. When he started work, he was given three paid days of vacation. For each six month period he stays at the job, his vacation is increased by two days.

1. Let *x* represent the number of 6-month periods worked and *y* represent the total number of paid vacation days. Write an equation that models the relationship between these two variables.
2. How much vacation time will he have earned after working 4.4 years?

4. When Lou started his current job, his employer told him that he would receive two vacation days for each full year he worked. Let *x* represent the numbers of years he has worked for the company and *y* represent the number of paid vacation days he earned.

* 1. Write an equation that models the relationship between the two variables.
  2. How long will it take him to earn 18 paid vacation days?

6. Ruth contributes 18% of the total cost of her individual health care. This is a $67.50 deduction from each of her biweekly paychecks. What is the total value of her individual coverage for the year?

7. At Richardson Manufacturing Company, there are two factors that determine the cost of health care. IF an employee makes less than $55,000 per year, he pays $40 per month for individual coverage and $85 per month for family coverage. If an employee makes at least $55,000 per year, individual coverage is $70 per month and family coverage is $165 per month.

1. Arielle is an office assistant at Richardson. She makes $47,700 per year. She has individual health care. Her yearly contribution is 5% of the total cost. How much does her employer contribute?
2. Catherine is a department manager at Richardson. Her annual salary is $68,300. She has family care. Her employer contributes $935 per month towards her total coverage cost. What percent does Catherine contribute toward the total coverage?

8. Eddie is a plant manager at North Salem Construction Company. He has been employed there for 20 years and will be retiring at the end of this year. His pension is calculated on the average of his last four years’ salaries. In those years, he earned $82,000, $96,000, $105,000, and $109,000. His employer will give him 1.2% of that average for each year he worked. Calculate Eddie’s pension.

9. As part of their employee benefits, all workers at Middletown Electronics receive a pension that is calculated by multiplying the number of years worked times 1.65% of the average of their three highest years’ salary. Maureen has worked for Middletown for 27 years and is retiring. Her highest salaries are $97,000, $97,800, and $98,198. Calculate Maureen’s pension.