Name Date

Enrichment and Extension

5.1

Ratios, Rates, and On-the-Job Decisions

Sally Smith has been offered two employment opportunities. Help her decide which job is better by answering the following questions.

1. Job A will pay $32,448 per year. How much money would Sally be making per hour? Assume pay is based on fifty-two 40-hour weeks.

2. Job B pays $14.80 per hour. How much money would she make in a year? Assume the pay is based on fifty-two 40-hour weeks.

3. Which job pays better? Explain your reasoning.

4. Sally lives 18 miles from Job A. A work week is five days. How many miles would she have to drive each week just to get to and from work?

5. For Job A, Sally would have to put 7.5 gallons of gas in her tank every   
3 days that she drives to and from work only. How many gallons of gas would she use in a five-day work week?

6. Based on your answers to Exercises 4 and 5, what is Sally’s gas mileage? (*Hint:* Gas mileage is a unit rate that is calculated as miles per gallon.)

7. If gas costs $4 per gallon, how much will gas cost Sally per day just to   
get to and from Job A per day? per week? per year?

8. The ratio of the length of Sally’s drive to Job A to the length of Sally’s drive to Job B is 2 : 3. How much money would she save on gas in a week with Job A as opposed to Job B?

9. Other than distance and cost of gas, what other factors should Sally consider when comparing commutes to work?

10. Macaroni and cheese is one of Sally’s favorite lunch foods. In the cafeteria at Job A,  cups of macaroni and cheese contains 6.5 grams of fat. The macaroni and cheese at Job B contains 10 grams of fat per pint. Which   
one has a lower fat content? Explain your reasoning.

11. Both places sell macaroni and cheese by weight. Job A’s cafeteria charges $7.25 per pound and Job B’s cafeteria charges $0.58 per ounce. Which cafeteria has the cheaper macaroni and cheese? Explain your reasoning.

12. Based on the information on this page, would you recommend that Sally take Job A or Job B? Explain your reasoning.

13. Other than pay, transportation costs, and cafeteria selections, what other factors should Sally consider when choosing a job?