

Practice A

For use with pages 33–40

Party Supplies In Exercises 1–4, use the following information. You have \$120 to purchase juice for a party. Each case of 24 bottles costs \$5.99. Assuming there is no sales tax, how many cases can you purchase? Use the following verbal model.

$$\boxed{\text{Total cost}} = \boxed{\text{Price per case}} \cdot \boxed{\text{Number of cases}}$$

1. Assign labels to the parts of the verbal model.
2. Use the labels to translate the verbal model into an algebraic model.
3. Solve the algebraic model.
4. Answer the question.

Vacation Trip In Exercises 5–8, use the following information. On a trip to the Grand Canyon, you drove 168 miles in $3\frac{1}{2}$ hours. What was your average speed? Use the following verbal model.

$$\boxed{\text{Distance}} = \boxed{\text{Rate}} \cdot \boxed{\text{Time}}$$

5. Assign labels to the parts of the verbal model.
6. Use the labels to translate the verbal model into an algebraic model.
7. Solve the algebraic model.
8. Answer the question.

Book Club In Exercises 9–12, use the following information. A book club promises to send 8 books for \$1, if you join the club. After you receive the 8 books, you may select more books at a rate of \$19.99 per book. If you spend a total of \$80.96, how many extra books did you purchase? Use the following verbal model.

$$\boxed{\text{Total cost}} = \boxed{\text{Cost for first 8 books}} + \boxed{\text{Cost of a book}} \cdot \boxed{\text{Number of books}}$$

9. Assign labels to the parts of the verbal model.
10. Use the labels to translate the verbal model into an algebraic model.
11. Solve the algebraic model.
12. Answer the question.

Lawn Fertilizer In Exercises 13–16, use the following information. A bag of lawn fertilizer claims that it will cover 5000 square feet of grass. If your yard is 27,500 square feet, how many bags of fertilizer will you need? Use the following verbal model.

$$\boxed{\text{Yard size}} = \boxed{\text{Coverage for one bag}} \cdot \boxed{\text{Number of bags}}$$

13. Assign labels to the parts of the verbal model.
14. Use the labels to translate the verbal model into an algebraic model.
15. Solve the algebraic model.
16. Answer the question.