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## Practice A

For use with pages 160-165

## Yearbook Layout In Exercises 1-3, use the following information.

A page of a school yearbook is $8 \frac{1}{2}$ inches by 11 inches. The left and right margins are 1 inch and $2 \frac{1}{2}$ inches, respectively. The space between pictures is $\frac{1}{4}$ inch. How wide can each picture be to fit 3 across the width of the page?

1. Write a verbal model for this problem.
2. Write an equation for the model.
3. Solve the equation and answer the question.


## Saving and Spending In Exercises 7-10, use the following information.

Currently, you have $\$ 60$ and your sister has $\$ 135$. You decide to save $\$ 5$ of your allowance each week, while your sister decides to spend her whole allowance plus $\$ 10$ each week. How long will it be before you have as much money as your sister?
7. Write a verbal model for this problem.
8. Write an equation for the model.
9. Solve the equation and answer the question.
10. Copy and complete the table below using the information from the original problem statement.

| Week | $\mathbf{0}$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Your money |  |  |  |  |  |  |
| Sister's money |  |  |  |  |  |  |

House Design In Exercises 4-6, use the following information.
You are designing a house with three 3 -feet-wide windows on the back of the house. There are 4 feet between each end window and an edge of the house. The width of the house is 33 feet. How far apart should the windows be?
4. Write a verbal model for this problem.
5. Write an equation for the model.
6. Solve the equation
 and answer the question.

## Temperature Change In Exercises 11-14, use the following information.

In Detroit the temperature is $69^{\circ} \mathrm{F}$ and is rising at a rate of $2^{\circ} \mathrm{F}$ per hour. In Atlanta the temperature is $84^{\circ} \mathrm{F}$ and is falling at a rate of $3^{\circ} \mathrm{F}$ per hour. If the temperatures continue to change at the same rates, how long will it be before the temperatures are the same?
11. Write a verbal model for this problem.
12. Write an equation for the model.
13. Solve the equation and answer the question.
14. Copy and complete the table below using the information from the original problem statement.

| Hour | $\mathbf{0}$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Detroit temperature |  |  |  |  |  |  |
| Atlanta temperature |  |  |  |  |  |  |

