



**Why should you label the faces of the solid figure before you cut it open?** [So you do not forget which face is the top, bottom, left, right, back, and front]

**Step 2**

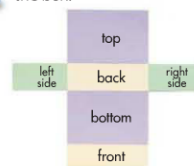
Open up the box along the edges.



**Should you cut on all the edges? Explain.** [No; you want to cut so all of the faces remain attached to each other.] **How do you know how many edges to cut?** [Cut one at a time and open up the figure one face at a time until the figure is completely flat.]

**Step 3**

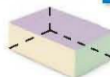
Unfold the box and lay it flat—this is the net for the box.



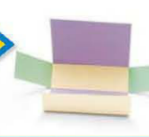
**What shapes do you see when you unfold the box?** [6 rectangles] **Do you think that this is the only way to cut open the box?** [No]

**Step 1**

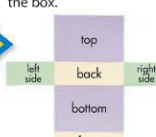
Imagine making cuts along some edges of a solid and opening it into a plane.

**Step 2**

Open up the box along the edges.

**Step 3**

Unfold the box and lay it flat—this is the net for the box.

**Problem Solving**

Exercise	Content
10	Identifying Solid Figures
11	Multiple Step ( $120 - 10 = 110$ ; $110 \div 2 = 55$ )
12	Write Equations ( $124 - 62 = d$ )
13	Division ( $6,000 \div 2$ )
14	Recognize Relationships Equations
15	Analyze Data Write Fractions

Students use underlying processes and mathematical tools for Exercises 10–15. Remind students to check for reasonableness when solving each problem.

**Exercise 11**

**Test-Taking Tip: Make Smart Choices** Remind students to eliminate wrong answers. *When you buy two items and want to find the total cost, what do you do?* [Add] *If you add all of the choices, which choices can you eliminate because the items don't total \$120?* [All except D]

**Exercise 14**

**Language of Math: Everyday Vocabulary** Students may not recognize that the word *double* means to multiply by 2. *Which answer choices show a number being multiplied by 2?* [A, C, and D] *Which choice shows 10 added to the product?* [D]

**Early Finishers** Try to make a net of a pyramid or a cube out of construction paper and write the steps on how you made it.

10. A net has 4 large rectangles and 2 small rectangles. What solid figure might it make?

**A** Rectangular prism  
**B** Square pyramid  
**C** Triangular prism  
**D** Rectangular pyramid

12. **Strategy Focus** When some rock music is played unamplified its sound has been measured at 62 decibels. Sound for amplified music can be measured at 124 decibels. Draw a picture and write an equation to find the difference between the number of decibels measured.

See margin.

14. **Algebra** Diane is thinking of a number. She doubles it and adds 10. Her result is 50. Which equation could you use to find Diane's number?

**A**  $(2 \times n) - 10 = 50$   
**B**  $2 \times 10n = 50$   
**C**  $2 \times n = 50$   
**D**  $(2 \times n) + 10 = 50$

11. Molly spent \$120 on two items. One cost \$10 more than the other. Which shows the correct cost for each?

**A** \$70, \$50  
**B** \$50, \$60  
**C** \$60, \$70  
**D** \$55, \$65

13. One company offers customers an Internet coupon to get a \$2 discount off a purchase from their Web site. If the value of the coupons downloaded so far is \$6,000, how many coupons have been downloaded?

**3,000 coupons**

For 15, use the table below.

Temperature							
Day	1	2	3	4	5	6	7
Temperature °F	34°	45°	37°	39°	48°	29°	36°

15. In what fraction of the days was the temperature between 30°F and 40°F? In what fraction was the temperature greater than 40°F?

**$\frac{4}{7}, \frac{2}{7}$**

Lesson 13-2

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12.  $124 \text{ decibels}$



$$124 - 62 = d$$

$$d = 62$$