

# Chapter 13 Review/Test



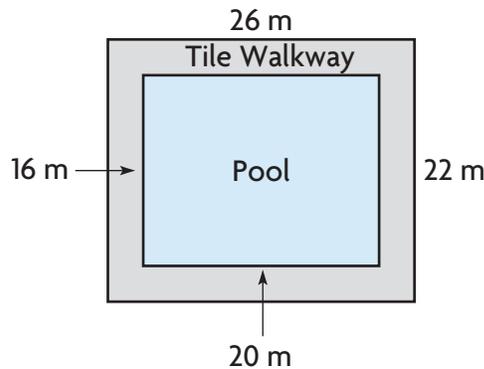
**Personal Math Trainer**

Online Assessment and Intervention

- For numbers 1a–1e, select Yes or No to indicate if a rectangle with the given dimensions would have a perimeter of 50 inches.
 

1a. length: 25 inches	width: 2 inches	<input type="radio"/> Yes	<input type="radio"/> No
1b. length: 20 inches	width: 5 inches	<input type="radio"/> Yes	<input type="radio"/> No
1c. length: 17 inches	width: 8 inches	<input type="radio"/> Yes	<input type="radio"/> No
1d. length: 15 inches	width: 5 inches	<input type="radio"/> Yes	<input type="radio"/> No
1e. length: 15 inches	width: 10 inches	<input type="radio"/> Yes	<input type="radio"/> No

- The swimming club’s indoor pool is in a rectangular building. Marco is laying tile around the rectangular pool.



**Part A**

What is the area of the pool and the area of the pool and the walkway? Show your work.

**Part B**

How many square meters of tile will Marco need for the walkway? Explain how you found your answer.

3. Match the dimensions of the rectangles in the top row with the correct area or perimeter in the bottom row.

length: 5 cm width: 9 cm	length: 6 cm width: 6 cm	length: 6 cm width: 5 cm	length: 9 cm width: 6 cm
•	•	•	•
•	•	•	•
area = 36 sq cm	perimeter = 22 cm	perimeter = 30 cm	area = 45 sq cm

4. Kyleigh put a large rectangular sticker on her notebook. The height of the sticker measures 18 centimeters. The base is half as long as the height. What area of the notebook does the sticker cover?

\_\_\_\_\_ square centimeters

**Personal Math Trainer**



5. **THINK SMARTER +** A rectangular flower garden in Samantha's backyard has 100 feet around its edge. The width of the garden is 20 feet. What is the length of the garden? Use the numbers to write an equation and solve. A number may be used more than once.

10   20   50   30   40   60   100

$$P = (2 \times l) + (2 \times w)$$

$$\square = (2 \times l) + (2 \times \square)$$

$$\square = 2 \times l + \square$$

$$\square = 2 \times l$$

$$\square = l$$

So, the length of the garden  $\square$  feet.

6. Gary drew a rectangle with a perimeter of 20 inches. Then he tried to draw a square with a perimeter of 20 inches.

Draw 3 different rectangles that Gary could have drawn. Then draw the square, if possible.

Name \_\_\_\_\_

7. Ami and Bert are drawing plans for rectangular vegetable gardens. In Ami's plan, the garden is 13 feet by 10 feet. In Bert's plan the garden is 12 feet by 12 feet. For numbers 7a–7d, select True or False for each statement.

7a. The area of Ami's garden is 130 square feet.  True  False

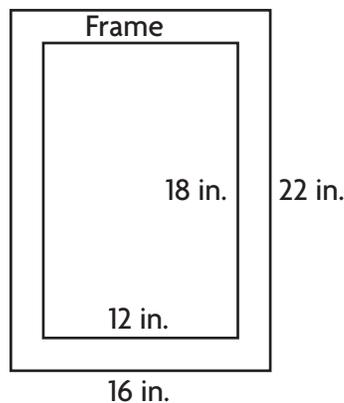
7b. The area of Bert's garden is 48 square feet.  True  False

7c. Ami's garden has a greater area than Bert's garden.  True  False

7d. The area of Bert's garden is 14 square feet greater than Ami's.  True  False

8. A farmer planted corn in a square field. One side of the field measures 32 yards. What is the area of the cornfield? Show your work.

9.  Harvey bought a frame in which he put his family's picture.

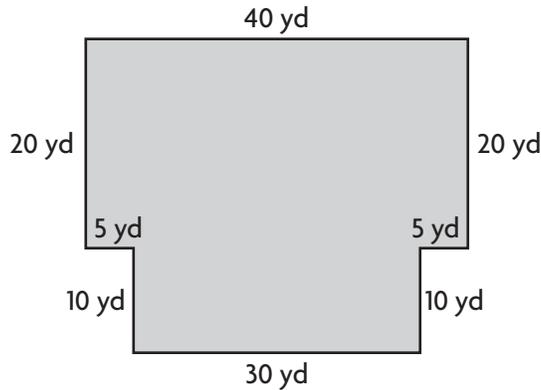


What is the area of the frame not covered by the picture?

\_\_\_\_\_ square inches

10. Kelly has 236 feet of fence to use to enclose a rectangular space for her dog. She wants the width to be 23 feet. Draw a rectangle that could be the space for Kelly's dog. Label the length and the width.

11. The diagram shows the dimensions of a new parking lot at Helen's Health Food store.



Use either addition or subtraction to find the area of the parking lot. Show your work.

12. Chad's bedroom floor is 12 feet long and 10 feet wide. He has an area rug on his floor that is 7 feet long and 5 feet wide. Which statement tells how to find the amount of the floor that is not covered by the rug? Mark all that apply.

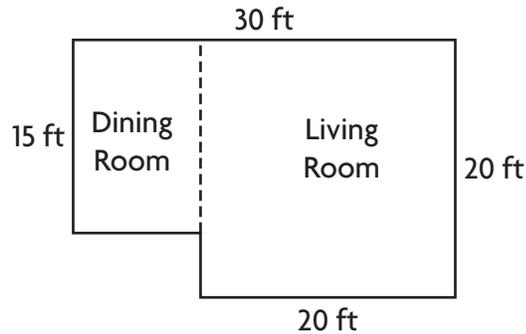
- A Add  $12 \times 10$  and  $7 \times 5$ .
- B Subtract 35 from  $12 \times 10$
- C Subtract  $10 \times 5$  from  $12 \times 7$ .
- D Add  $12 + 10 + 7 + 5$ .
- E Subtract  $7 \times 5$  from  $12 \times 10$ .
- F Subtract  $12 \times 10$  from  $7 \times 5$ .

13. A row of plaques covers 120 square feet of space along a wall. If the plaques are 3 feet tall, what length of the wall do they cover?

\_\_\_\_\_ feet

Name \_\_\_\_\_

14. Ms. Bennett wants to buy carpeting for her living room and dining room.

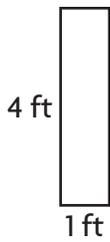


Explain how she can find the amount of carpet she needs to cover the floor in both rooms. Then find the amount of carpet she will need.

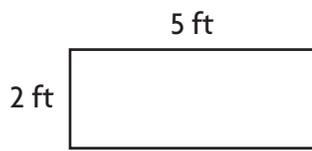
15. Lorenzo built a rectangular brick patio. He is putting a stone border around the edge of the patio. The width of the patio is 12 feet. The length of the patio is two feet longer than the width.

How many feet of stone will Lorenzo need? Explain how you found your answer.

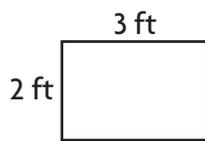
16. Which rectangle has a perimeter of 10 feet? Mark all that apply.



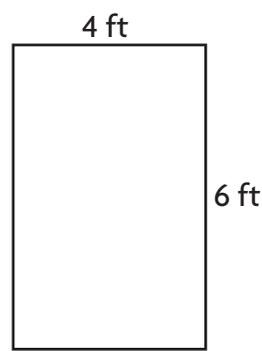
**A**



**B**



**C**



**D**

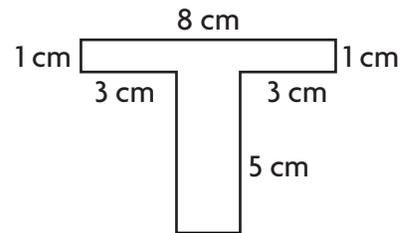
17. A folder is 11 inches long and 8 inches wide. Alyssa places a sticker that is 2 inches long and 1 inch wide on the notebook. Choose the words that correctly complete the sentence.

To find the number of square inches of the folder that is NOT covered by the sticker,

add	the	width of the sticker	from	the	width of the sticker.	
subtract		area of the sticker			by	area of the sticker.
multiply		area of the notebook			to	area of the notebook.

18. Tricia is cutting her initial from a piece of felt.

For numbers 18a–18c, select Yes or No to tell whether you can add the products to find the number of square centimeters Tricia needs.



- 18a.  $1 \times 8$  and  $5 \times 2$   Yes  No
- 18b.  $3 \times 5$  and  $1 \times 8$   Yes  No
- 18c.  $2 \times 5$  and  $1 \times 3$  and  $1 \times 3$   Yes  No

19. Mr. Butler posts his students' artwork on a bulletin board.

The width and length of the bulletin board are whole numbers. What could be the dimensions of the bulletin board Mr. Butler uses?



Area = 15 square feet