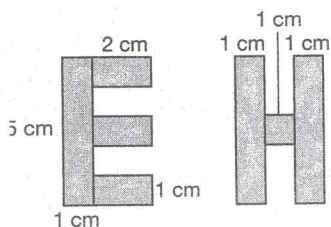


## Chapter 8 Lesson 5 Solve Problems by Solving Simpler Problems

### Answers

1. For example, adding the areas of the two smaller rectangles together made the problem easier and quicker to solve. If I don't use this strategy the problem will take longer to solve.
2. For example, yes, because if I find the area of the larger rectangle and then subtract the part that the lawn does not cover, I am left with the area of the lawn.
3. a) For example, I used a 3 m by 2 m rectangle and a 11 m by 3 m rectangle. Their areas are  $3 \text{ m} \times 2 \text{ m} = 6 \text{ m}^2$ , and  $11 \text{ m} \times 3 \text{ m} = 33 \text{ m}^2$ . Together they equal  $39 \text{ m}^2$ .  
b) For example, yes, because using two different rectangles does not change the larger area.
4. For example, I divided each letter into rectangles and then calculated each letter's area. I first had to measure the dimensions of the letters. I found that each small rectangle in the "E" had an area of  $1 \text{ cm} \times 2 \text{ cm} = 2 \text{ cm}^2$  and that the long one had an area of  $1 \text{ cm} \times 5 \text{ cm} = 5 \text{ cm}^2$ . So the total area was  $2 \text{ cm}^2 + 2 \text{ cm}^2 + 2 \text{ cm}^2 + 5 \text{ cm}^2 = 11 \text{ cm}^2$ .



I found that the tall rectangles in the "H" also had an area of  $1 \text{ cm} \times 5 \text{ cm} = 5 \text{ cm}^2$ , while the area of the small rectangle was  $1 \times 1 = 1 \text{ cm}^2$ . So the total area of the "H" was  $5 + 5 + 1 = 11 \text{ cm}^2$ .

5. For example, I first divided the pool deck into 4 rectangles, two at  $18 \text{ m} \times 2 \text{ m}$  and two at  $7 \text{ m} \times 2 \text{ m}$ . I then found the area of the two long rectangles:  $18 \text{ m} \times 2 \text{ m} = 36 \text{ m}^2$ . Next I found the area of the two short rectangles:  $7 \text{ m} \times 2 \text{ m} = 14 \text{ m}^2$ . I then added to get the total area of the pool deck:  $36 \text{ m}^2 + 36 \text{ m}^2 + 14 \text{ m}^2 + 14 \text{ m}^2 = 100 \text{ m}^2$ .