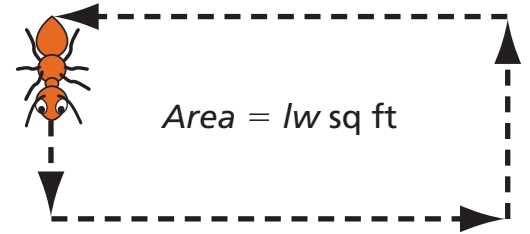


Equations for Stories


NCTM Standards 1, 2, 6, 7, 8, 9

An ant crawled from one corner of a rectangular room, along all four walls, and ended back where it started. One dimension was l feet, one dimension was w feet, and it took lw square-foot tiles to cover the floor.

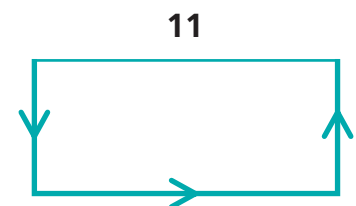
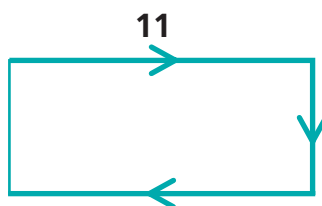
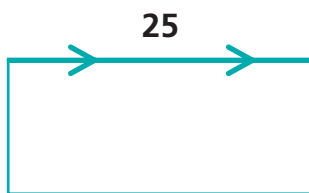


1 Complete the table.

l	10		20	15			17	
w	15	9				8		
Area (lw)		108	340	225	77			143
Perimeter ($2l + 2w$)						34	60	

2  The ant crawled along 3 walls and had 11 feet to go before reaching its starting place. The trip around the three walls had been 25 feet. What are the room's dimensions? Explain your answer.

3 Select and circle a diagram that correctly represents Problem 2.



At the science museum, adult tickets cost \$10, and child tickets cost \$7.

- 4 Mrs. Nikula took some fourth graders to the museum. Circle the number sentence that best describes the total cost of the tickets. T stands for the total cost; C stands for the number of children in the group. Remember, Mrs. Nikula bought herself a ticket, too!

$$T = 10C + 7$$

$$T = 7C + 10K$$

$$K = 7C$$

$$T = 7C + 10$$

- 5 Several families visited the museum together. Write an equation to describe the total cost of tickets. Use T to stand for the total cost, A to stand for the number of adults in the group, and C to stand for the number of children.

- 6 Two different groups visited the museum. Each group paid \$121 for their tickets. The two groups did not have the same number of children. How many adults and children were in each group?

	Group 1	Group 2
Adults		
Children		



- 7 **Challenge** The museum changed its ticket prices. Now, three child tickets cost the same as two adult tickets. A group of 5 adults and 6 children paid \$108.

One adult ticket costs \$_____, one child ticket

costs \$_____. Explain how you found your answer.
