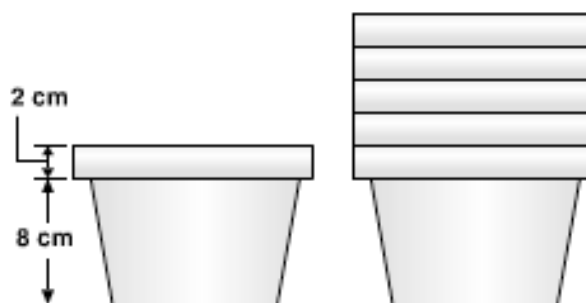


Bridging to high school

Student Activity Sheet 2; use with *Exploring* “Algebra I bridges,” pages 4 and 5

The picture shows one paper cup and five paper cups in a stack.



1. The table shows the heights of stacks with different numbers of cups. Fill in the table with the missing information.

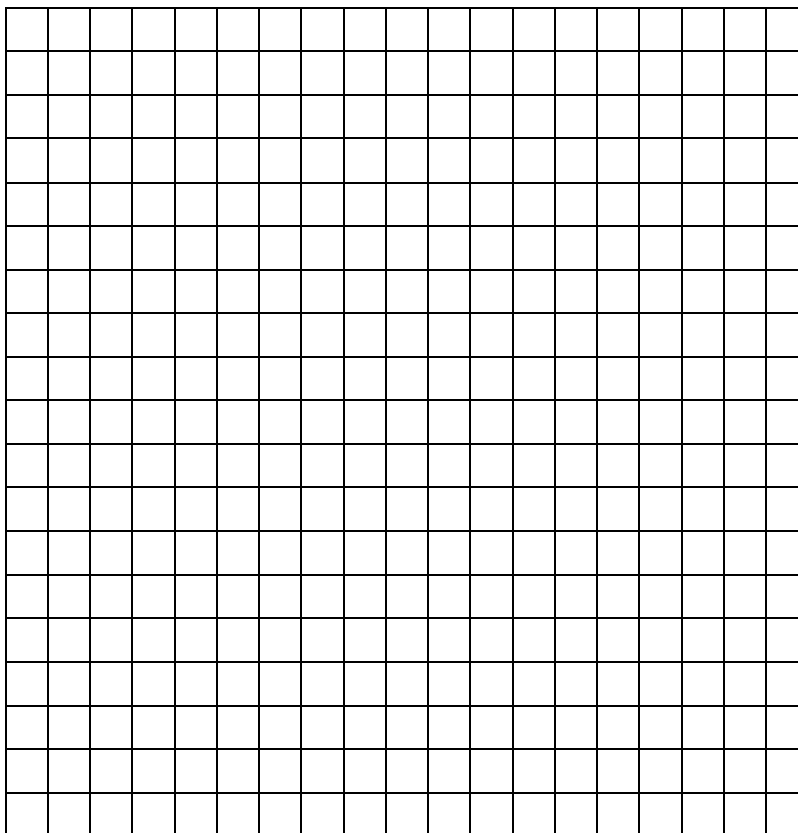
Height of Stacked Cups		
Number of cups	Process	Height of stack (cm)
1	$8 + 2(1)$	10
2	$8 + 2(2)$	12
3	$8 + 2()$	
		16
	$8 + 2(5)$	
6		

2. Write a verbal description of the relationship between the number of cups in a stack and the height of the stack in centimeters.
3. Write an algebraic rule to represent the relationship between the number of cups in a stack and the height of the stack in centimeters. (Hint: Add a row to your table and use the process column to help you find the algebraic rule.)

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4. Create a graph to represent the relationship between the number of cups in a stack and the height of the stack in centimeters.



Use any of your representations to answer questions 5-8. Show your steps or explain how you found your answers.

5. A stack contains 13 cups. How tall is the stack?
6. Is it possible to have a stack that is 46 cm tall? Why or why not? If it is possible, how many cups would there be?
7. Is it possible to have a stack that is 49 cm tall? Why or why not? If it is possible, how many cups would there be?
8. Barbara made stacks using cups of a different size. She wrote a different algebraic rule for the relationship.

$$H = 11 + 2c$$

Describe the cups she used. Then write a verbal description of the relationship modeled by her equation.