

# Lesson 1-2 Homework:

## Check Your Understanding

A pattern of small squares is shown below. Use the pattern to respond to the following questions.



Figure 1

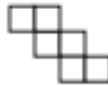


Figure 2



Figure 3

21. Create a table to show the number of small squares in the first through the fifth figures, assuming the pattern continues.
22. Write the number of small squares in each figure as a sequence. Does the sequence have a common difference? If so, identify it. If not, explain.
23. How many small squares would be in the 10th figure? Justify your response using the sequence or the table.
24. Use the variable  $n$  to write an expression that could be used to determine the number of small squares in any figure in the pattern.
25. Use your expression to determine the number of small squares in the 20th figure.

## Answers

21.

Figure Number	Number of Squares
1	4
2	6
3	8
4	10
5	12

22. 4, 6, 8, 10, 12, ...; yes; common difference: 2
23. 22; 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, ...
24.  $4 + 2(n - 1)$  or  $2n + 2$
25. 42

## LET'S TRACK IT!

$$5 \text{ correct} = 4$$

$$4 \text{ correct} = 3$$

$$3 \text{ correct} = 2$$

$$1 \text{ or } 2 \text{ correct} = 1$$

$$0 \text{ correct} = 0$$