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| Name: | Class: | Date: |

10.1 Describe Patterns

A pattern is an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ such as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ where you can determine the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of each \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ based on a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

To describe a pattern, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* Show You Know: Look at the figure at the bottom of the page 353 and answer to following

1. Describe the pattern: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. How many squares will be in Figure 5? \_\_\_\_\_\_\_\_\_\_

10.2 Variables and Expressions:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are letters used to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can be a single \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can also be a combination of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ like \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that involves \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

It is important to note that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are not the same as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ because they do not show \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Explore the Math:

Using the pictures on p. 358 as a guide, draw the first 5 sections of the fence pattern shown. Make a table showing section number related to post and rail number.

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Consider, how are the section of the fence related to posts? How are they related to rails?

If s is used to represent sections, write an expression for:

a) the number of posts in relation to s

b) the number of rails in relation to s

* Show You Know: Use the diagram on the bottom of page 359 to answer the four questions.
* Show You Know: Create an expression for the two scenarios given at the bottom of p. 360

Homework: