

Home Connections

Math Activities

Grade 6

Patterning and Algebra

Beyond Triangular Numbers
Constants and Variables

Beyond Triangular Numbers

At a fun fair, Alex enters several contests and competitions every year.

The first year she wins 1 gold ribbon. The second year she wins 1 gold ribbon, and 2 silver ribbons. The third year she wins 1 gold ribbon, 2 silver ribbons, and 3 bronze ribbons. The fourth year she wins 1 gold ribbon, 2 silver ribbons, 3 bronze ribbons, and 4 red ribbons. The pattern continues and she wins more ribbons every year until on the tenth year she wins 1 gold ribbon, 2 silver ribbons, 3 bronze ribbons, 4 red ribbons, 5 blue ribbons, 6 yellow ribbons, 7 green ribbons, 8 purple ribbons, 9 pink ribbons, and 10 black ribbons.

Have your child draw a chart or diagram to show the solutions to the following questions.

1. Which colour of ribbon do you think Alex wins the most of during those 10 years?
2. Which colour of ribbon does Alex actually win the most of during those 10 years?



Let's Talk About It

- How did you find the answer?
- Why can the number of ribbons be called triangular numbers?

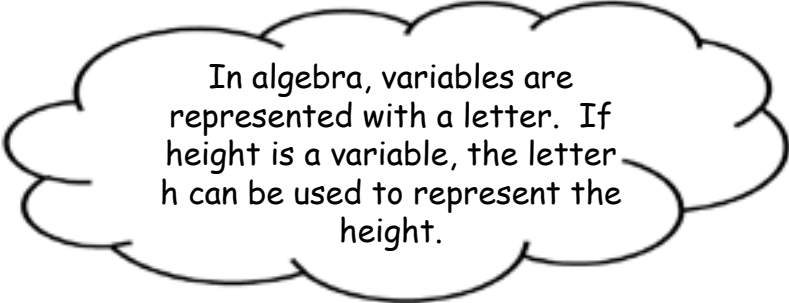
Constants and Variables

1. Ask your child to identify things that are constants in his or her life.

For example, I have never moved. I have lived in the same place since I was born.

2. Ask your child to identify things that are variables in his or her life.

For example, I grew 12 cm this year, and 6 cm the year before.



In algebra, variables are represented with a letter. If height is a variable, the letter h can be used to represent the height.

Let's Talk About It

- Which was easier to find: examples of constants or examples of variables? Why?