# Big Ideas Math®



# **Anything but Eight**

### ▶ Materials:

- 2 number cubes
- · Game chart for each pair

## **▶** Directions:

Students play in pairs and take turns. After rolling the number cubes, Player 1 records the sum of the numbers. Player 1 can continue as long as desired or until the sum of the number cubes is eight. If the sum is eight, the player loses all points for that round. If the player stops before getting a sum of eight, the players find the total of all points for the round. Player 2 does the same. Both players use the chart to keep a running total of points.

# ► Who Wins?

The partner with the highest running total at the end of 10 rounds, or after a set amount of time wins.

#### Discuss:

Discuss with the students how often they can expect a sum of eight. Have them make a chart (see next page) that will help them to see the possibilities. How can they use this information to make better choices in the game?

#### **▶** Variation:

Use number cubes that are two different colors. Designate one as a positive number and the other as a negative number. Change the game to Anything but Zero.



# Game chart for Anything but Eight

| Player 1 |             |                    |                  | Player 2 |             |                    |                  |
|----------|-------------|--------------------|------------------|----------|-------------|--------------------|------------------|
| Round    | Sums rolled | Total per<br>round | Running<br>total | Round    | Sums rolled | Total per<br>round | Running<br>total |
| 1        |             |                    |                  | 1        |             |                    |                  |
| 2        |             |                    |                  | 2        |             |                    |                  |
| 3        |             |                    |                  | 3        |             |                    |                  |
| 4        |             |                    |                  | 4        |             |                    |                  |
| 5        |             |                    |                  | 5        |             |                    |                  |
| 6        |             |                    |                  | 6        |             |                    |                  |
| 7        |             |                    |                  | 7        |             |                    |                  |
| 8        |             |                    |                  | 8        |             |                    |                  |
| 9        |             |                    |                  | 9        |             |                    |                  |
| 10       |             |                    |                  | 10       |             |                    |                  |