

# ALGEBRA 2

## Opening Quiz

### CONCEPTS & PROCEDURES

Practices 7 & 8

If inflation were to average 3% annually, what will be the cost of a \$6.60 Double-Double meal from In-N-Out when you are 52 years old?

### CRITICAL THINKING

Practices 1 & 6

A number is divided by a quantity four less than itself, represented by the expression below. Which values of  $x$  will result in a quantity less than one? Greater than one? Which values of  $x$  cannot be used at all, and why?

$$\frac{x}{x-4}$$

### COMMUNICATE REASONING

Practice 2 & 3

Talk-a-Lot cell phone service offers a monthly plan of \$2 basic rate, plus 5 cents per minute. Talk-Some-More offers a monthly plan of \$5 basic rate, but only 3 cents per minute. Which plan is the least expensive and why?

### CONSTRUCT MODELS

Practices 4 & 5

The height of a toy rocket launched from the ground after a given time is  $h(t) = 32t - 16t^2$ . When will the rocket return to the ground?