

NAME: \_\_\_\_\_

## UNIT 2 • REASONING WITH EQUATIONS AND INEQUALITIES

### Lesson 1: Solving Equations and Inequalities

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#### Problem-Based Task 2.1.4: Singing Celebration

You're a big fan of a new reality series, "Singing Celebration." Contestants from around the country compete to be celebrated as the best singer. Scores are ranked highest to lowest. Those singers falling in the lowest half of the rankings are eliminated. The first season started with 64 contestants. If half of the contestants are eliminated each week, for how many weeks will the program air?

Producers have already decided that next season will be 4 weeks longer than this season. How many more contestants will next season need to start with?

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#### Problem-Based Task 2.1.4: Singing Celebration

##### Coaching

- a. How many contestants did the show start with in its first season?
  
  
  
  
  
- b. How many contestants are eliminated each week?
  
  
  
  
  
- c. What equation can be written to find the number of weeks the program airs?
  
  
  
  
  
- d. How many weeks will the show's first season air?
  
  
  
  
  
- e. How many more weeks will the show's second season air?
  
  
  
  
  
- f. How many weeks will the show's second season air?
  
  
  
  
  
- g. What equation can be written to find the number of contestants needed for the second season?
  
  
  
  
  
- h. How many contestants will the second season start out with?
  
  
  
  
  
- i. How many more contestants will the show's second season have than its first season?