## Unit 3 Lesson 5: Reasoning about Equations and Tape Diagrams (Part 2)

### 1 Algebra Talk: Seeing Structure (Warm up)

#### Student Task Statement

Solve each equation mentally.

### 2 More Situations and Diagrams

#### Student Task Statement

Draw a tape diagram to represent each situation. For some of the situations, you need to decide what to represent with a variable.

1. Each of 5 gift bags contains pencils. Tyler adds 3 more pencils to each bag. Altogether, the gift bags contain 20 pencils.
2. Noah drew an equilateral triangle with sides of length 5 inches. He wants to increase the length of each side by inches so the triangle is still equilateral and has a perimeter of 20 inches.
3. An art class charges each student $3 to attend plus a fee for supplies. Today, $20 was collected for the 5 students attending the class.
4. Elena ran 20 miles this week, which was three times as far as Clare ran this week. Clare ran 5 more miles this week than she did last week.

### 3 More Situations, Diagrams, and Equations

#### Student Task Statement

Each situation in the previous activity is represented by one of the equations.

1. Match each situation to an equation.
2. Find the solution to each equation. Use your diagrams to help you reason.
3. What does each solution tell you about its situation?



© CC BY Open Up Resources. Adaptations CC BY IM.