

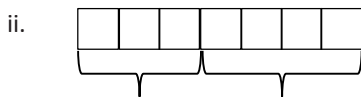
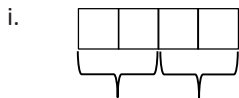
Lesson 1: The Relationship of Addition and Subtraction

Classwork

Opening Exercise

- a. Draw a tape diagram to represent the following expression: $5 + 4$.

- b. Write an expression for each tape diagram.



Exercises

- Predict what will happen when a tape diagram has a large number of squares, some squares are removed, and then the same amount of squares are added back on.
- Build a tape diagram with 10 squares.
 - Remove six squares. Write an expression to represent the tape diagram.
 - Add six squares onto the tape diagram. Alter the original expression to represent the current tape diagram.

- c. Evaluate the expression.
3. Write an equation, using variables, to represent the identities we demonstrated with tape diagrams.
4. Using your knowledge of identities, fill in each of the blanks.
- a. $4 + 5 - \underline{\hspace{1cm}} = 4$
- b. $25 - \underline{\hspace{1cm}} + 10 = 25$
- c. $\underline{\hspace{1cm}} + 16 - 16 = 45$
- d. $56 - 20 + 20 = \underline{\hspace{1cm}}$
5. Using your knowledge of identities, fill in each of the blanks.
- a. $a + b - \underline{\hspace{1cm}} = a$
- b. $c - d + d = \underline{\hspace{1cm}}$
- c. $e + \underline{\hspace{1cm}} - f = e$
- d. $\underline{\hspace{1cm}} - h + h = g$