

18  $10 + 8$   
 $(8 + 2) + 8$

12  $10 + 2$   
 $(6 + 4) + \square$

11  $10 + 1$   
 $(5 + 5) + \square$

17  $10 + 7$   
 $(4 + 6) + \square$

13  $10 + 3$   
 $(9 + 1) + \square$

19  $10 + 9$   
 $(4 + 6) + \square$

20  $10 + 10$   
 $5 + 5 + \square$

15  $10 + 5$   
 $1 + 9 + \square$

10  $10 + 0$   
 $2 + 8 + \square$

14  $8 + 6$   
 $3 + 3 + \square$

16  $7 + 9$   
 $8 + 1 + \square$

9  $3 + 6$   
 $4 + 2 + \square$

# Teacher Notes:

## Associative Property 1 (Grade 1)

### ONLINE ACTIVITY

[Associative Puzzle](#)

### ESL VOCABULARY

*group*

*total*

### LEAD-IN ACTIVITY SUGGESTIONS

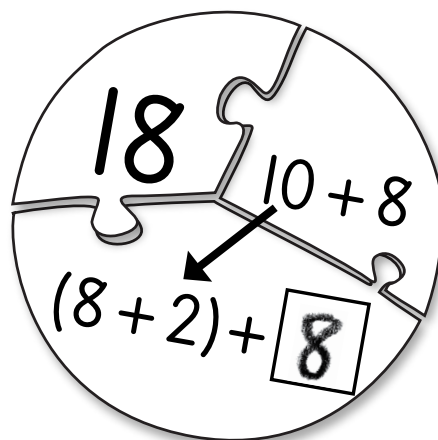
1. Bring a set of ten objects to the front of the class. Ask how many objects you have. Split the objects into a group of 2 and a group of 8, and ask how many you have in each group and in total. Split the group of 8 into a group of 3 and a group of 5 (and retain the group of 2). Ask students how many objects you have in each group and how many in total. Did the total number change? Turn focus to the Associative Puzzle online activity or worksheet.

### EXTENSION ACTIVITY SUGGESTIONS

1. Give students paper plates and ask them to cut the plates into three puzzle pieces and give each student a sum to work with. On one puzzle piece, they should write the sum, and then an equation that adds up to it on the two remaining pieces, showing the associative property on the third piece, similar to the online activity and the worksheet. When students are ready, ask them to work in groups. Take the puzzle pieces from one group and switch with those from another group. Have groups work together to solve the puzzles.

### ADDITIONAL NOTES

1. **Virtual:** Ask students to have ten objects (dried pasta, pencils, erasers, etc.) and to use them to follow along as the teacher splits the objects into groups.
2. **ESL and Special Education:** Review vocabulary. Model meanings using manipulatives.



18      $10 + 8$   
 $(8 + 2) + 8$

12      $10 + 2$   
 $(6 + 4) + 2$

11      $10 + 1$   
 $(5 + 5) + 1$

17      $10 + 7$   
 $(4 + 6) + 7$

13      $10 + 3$   
 $(9 + 1) + 3$

19      $10 + 9$   
 $(4 + 6) + 9$

20      $10 + 10$   
 $5 + 5 + 10$

15      $10 + 5$   
 $1 + 9 + 5$

10      $10 + 0$   
 $2 + 8 + 0$

14      $8 + 6$   
 $3 + 3 + 8$

16      $7 + 9$   
 $8 + 1 + 7$

9      $3 + 6$   
 $4 + 2 + 3$