

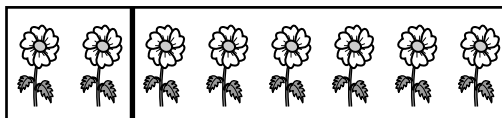
Addition Meaning and Properties

The Commutative (Order) Property

You can add numbers in any order, and the sum will be the same.



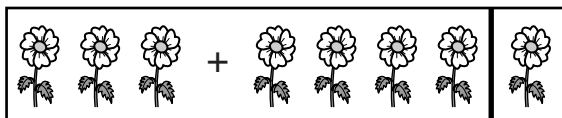
$$6 + 2 = 8$$



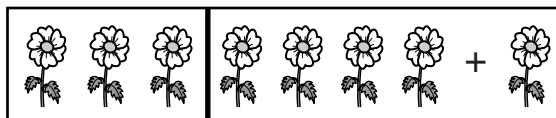
$$2 + 6 = 8$$

The Associative (Grouping) Property

You can group addends in any way, and the sum will be the same.



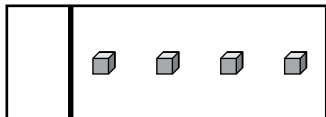
$$(3 + 4) + 1 = 8$$



$$3 + (4 + 1) = 8$$

The Identity (Zero) Property

The sum of any number and zero equals that same number.



$$0 + 4 = 4$$

Find each sum.

1. $3 + (2 + 4) = \underline{9}$

2. $(0 + 5) + 2 = \underline{7}$

3. $(8 + 3) + 4 = \underline{15}$

4. $9 + 2 + 6 = \underline{17}$

Write each missing number.

5. $3 + 4 = 4 + \underline{3}$

6. $\underline{0} + 7 = 7$

7. $(2 + 3) + 4 = \underline{3} + (2 + 4)$

8. $9 + (2 + 7) = (9 + 2) + \underline{7}$

9. **Reasoning** Does $(4 + 5) + 2 = 9 + 2$? Explain.

$(4 + 5) + 2$ has the same sum as $9 + 2$.

Both equal 11.