

Distributive Property With Algeblocks



Name _____

1. Arrange 5X's and 10 units into groups so that each group is identical to the other groups. Sketch your work. Write a variable expression using parentheses to represent your groups.
2. Find another way to group 5X and 10 units so that each group is identical. Sketch your work. Write a variable expression using parentheses to represent your grouping.
3. Arrange 8X's and 12 units into groups so that each group is identical to the other groups. Sketch your work. Write a variable expression using parentheses to represent your groups.
4. Find another way to group 8X and 12 units so that each group is identical. Sketch your work. Write a variable expression using parentheses to represent your grouping.
5. Arrange 6X's and 6 units into groups so that each group is identical to the other groups. Sketch your work. Write a variable expression using parentheses to represent your groups.
6. Find another way to group 6X's and 6 units so that each group is identical. Sketch your work. Write a variable expression using parentheses to represent your grouping.
7. Make up a problem of your own. Show the X's and units in your sketch and write the algebraic expression for your problem.

8. Build and sketch $3(x + 3)$.

Now rearrange the Algeblocks so all X's are grouped together and all units are grouped together. Sketch your new arrangement.

Write a variable expression for the rearranged Algeblocks.

9. Build and Sketch $2(3x + 4)$.

Now rearrange the Algeblocks so all X's are grouped together and all units are grouped together. Sketch your new arrangement.

Write a variable expression for the rearranged Algeblocks.

Use the distributive property to write the problems below using parentheses.

10. $2x + 14$

11. $21 + 14x$

12. $5x + 15$

Use the distributive property to write the problems below without the parentheses

13. $4(2x + 9)$

14. $2(4 + x)$

15. $(w + 6)^2$

16. The problems above have demonstrated the distributive property of multiplication over addition. In your own words, write a definition or explanation for what it means to distribute and how the distributive property works.