

Multiply with 3, 4, and 6



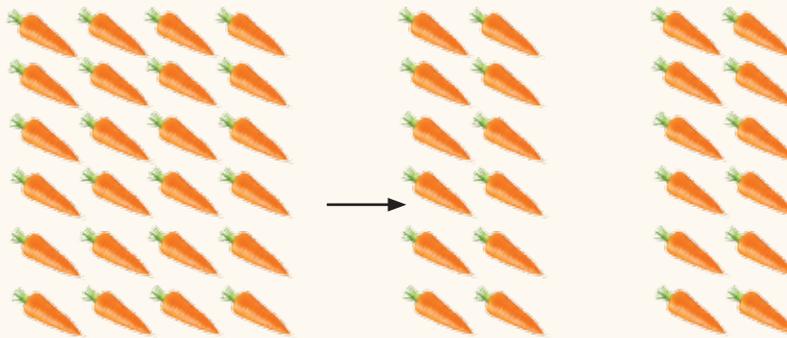
Dear Family,
This week your child is learning multiplication facts for 3, 4, and 6.

Your child can use known multiplication facts for 1, 2, and 5 to learn multiplication facts for 3, 4, and 6. To solve a harder multiplication equation, you can break apart one factor into lesser numbers to make two easier multiplication equations.

Consider the following multiplication situation.

*Pete plants 6 rows of carrots in his garden. Each row has 4 carrots.
How many carrots did Pete plant?*

Maybe you do not know 6×4 , but you do know 6×2 .



6 rows of 4 carrots is the same as 6 rows of 2 carrots and 6 rows of 2 carrots.

$$6 \times 4 = (6 \times 2) + (6 \times 2) = 12 + 12 = 24$$

So, Pete plants 24 carrots.

Invite your child to share what he or she knows about breaking apart numbers to multiply by doing the following activity together.



ACTIVITY SPLITTING NUMBERS

Do this activity with your child to multiply with 3, 4, and 6.

Materials 36 pennies or other small objects, a paper clip, a pencil, a spinner showing 2–6

Do this activity with your child to practice breaking apart numbers to learn multiplication facts.

- Start by making a spinner. You can do this by putting the tip of a pencil through a paper clip at the center of a paper plate divided into five equal parts and labeled 2–6 as shown at the right.
- Have your child spin the spinner twice to determine the number of rows and columns in an array.
- Work together to build the array using the pennies.
- Have your child write the multiplication expression shown by the array. For example, if the array has 6 rows and 4 columns, your child would write 6×4 .
- Ask your child to choose where to separate two columns in the array to show breaking apart a factor.
- Have your child write the two multiplication expressions he or she has made by breaking apart the columns in the array. For example: $(6 \times 2) + (6 \times 2)$.
- Ask your child to find the two products and then add the products to find the answer to the original problem. For example: $12 + 12 = 24$.
- Together, count the objects in the array to check the answer and then write the multiplication fact. For example: $6 \times 4 = 24$.
- Repeat several times.

