Dear Family,

This week your child is exploring using fact families, doubles, and doubles plus 1 to solve addition and subtraction problems with mental math.

A **fact family** is a group of related number sentences that use the same numbers, but in a different order.

$$9 + 6 = 15 \qquad 15 - 9 = 6$$
$$6 + 9 = 15 \qquad 15 - 6 = 9$$

When asked to find $15 - 9$ using mental math, your child can solve a related fact that he or she may find easier. $15 - 9 = ?$ is the same as $9 + ? = 15$, and if your child knows that $9 + 6 = 15$, then he or she knows $15 - 9 = 6$.

Another strategy your child can use is doubles or doubles plus 1. A **doubles** fact is an addition fact that has two addends that are the same, such as $4 + 4$. A **doubles plus 1** fact is an addition fact that has a double as one addend and the double and one more as the other addend, such as $4 + 5$. What is $15 - 7$? Using the fact family, you can think of it as $7 + ? = 15$. Use a doubles fact that has a sum close to 15.

Think:　$7 + 7 = 14$
$7 + 7 + 1 = 15$
$7 + 8 = 15$

You know that the sum of 7 and 7 is 14, and one more is 15. $7 + 8 = 15$, so $15 - 7 = 8$.

Invite your child to share what he or she knows about using fact families, doubles, and doubles plus 1 by doing the following activity together.

NEXT

Fact Family Activity

Work with your child to create fact family cards, by cutting out the facts below and coloring the backs, or by writing the facts on index cards. As you do this, ask your child to identify any fact that is a doubles plus 1 ($9 + 8 = 17$ and $8 + 9 = 17$).

- Each player chooses one of the single-number cards (14 or 17) and places it face-up in front of him or her. Shuffle the fact cards. Place them face-down in 2 rows with 4 cards in each row.

- Players take turns flipping over two cards.
  - If either of the cards are not in the same fact family as the player's number card, then put them both back face down.
  - If both of the cards are in the same fact family as the number card, then the player keeps the cards.

- The first player to find the 4 cards that make a family that goes with his or her number card wins.

$8 + 6 = 14$	$6 + 8 = 14$	$14 - 8 = 6$
$14 - 6 = 8$	$9 + 8 = 17$	$8 + 9 = 17$
$17 - 9 = 8$	$17 - 8 = 9$	14 17