

Core Focus

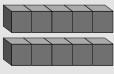
- Addition: double-plus-1 and double-plus-2 strategies
- Number: comparing and ordering two-digit numbers
- Number: comparing two-digit numbers (with symbols)

Addition

- The doubles strategy can be extended to other addition facts, like **double-plus-1** (e.g. see $7 + 8$, *think* double 7 plus 1 is 15), and double-plus-2 (e.g. see $6 + 8$, *think* double 6 plus 2 is 14).

5.1 Addition: Introducing the double-plus-1 strategy


Step In What doubles fact do these cubes show?




What equation can you write to show this double?

+ =

How can you use that doubles fact to figure out the total number of these cubes?



5 plus 6 is the same value as double 5 and 1 more. So $5 + 6$ is 11.



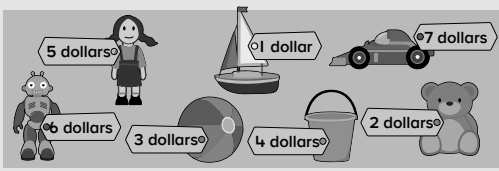
What equation can you write to match this fact?

In this lesson, students use what they know about doubles to learn the facts that are one more than the double.

- Mental strategies such as doubling are efficient and flexible approaches to solving addition and subtraction problems. These strategies are extended beyond the facts to two-digit numbers later on.
- At the end of the module, students apply both the count-on and doubling strategies in real-world situations, such as shopping.

5.5 Addition: Comparing all strategies

Step In Look at these toys and prices.



How can you figure out the total cost of the bucket and doll?

How can you figure out the total cost of the ball and bear?

What other way could you figure it out?

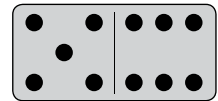
What other totals can you figure out using that strategy?

Ideas for Home

- Ask your child to show you some double-plus-1 or double-plus-2 facts with dominoes, coins, or standard cards.

Glossary

- ▶ Here is an example of the **double-plus-1** strategy:

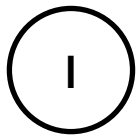


Double 5 plus 1 is 11.

Helpful video

View these short one-minute videos to see these ideas in action.

www.bit.ly/OI_4



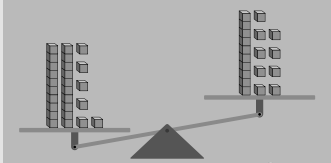
Module 5

Number

- It takes time, practice, and experience with manipulating tens and ones before students see the relationship between a number and its expanded place value, as shown below with the number 27.
- To develop a sound understanding of grouping by tens and ones, students represent two-digit numbers with blocks, as numerals, in expanded form, and in words.
- Students compare and order two-digit numbers, and then explore place-value on a hundred chart.


5.6 Number: Using a pan balance to compare quantities

Step In What two numbers are shown on this pan balance?



Why don't the two numbers balance?
Which number is greater? How do you know?

The greater number must be heavier.



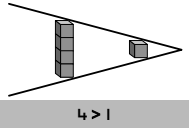
In this lesson, students use base-10 blocks to compare two-digit numbers.

- Inequality, when one side is **greater than** or **less than** the other, is also explored using the pan balance. The comparison symbols that mean “is less than” ($<$) and “is greater than” ($>$) to record inequalities are introduced.

5.10 Number: Introducing comparison symbols

Step In Look at this block picture.

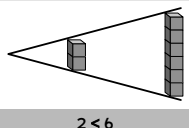
Which side has the greater number of blocks?
Look at the comparison sentence below the picture.
How does it match the picture?
What do you think $>$ means?



$4 > 1$

When read from left to right, the symbol $>$ means is greater than.

Look at this block picture.
Which side has the **greater** number of blocks?
Look at the comparison sentence below the picture.
How does it match the picture?
What do you think $<$ means?



$2 < 6$

When read from left to right, the symbol $<$ means is less than.

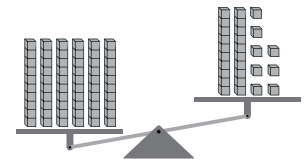
In this lesson, students are introduced to comparison symbols.

Ideas for Home

- Explore inequality using addition equations: e.g. place 30 pennies on one plate and 25 pennies on another. Ask, “Are these groups the same? Which is greater? Which is less? How do you know?” Point to the plate with 25 pennies and ask, “How many more do we need to put on this plate to make both plates the same?”

Glossary

- ▶ A **pan balance** is both a tool and a model to show equality and compare numbers.



This pan balance shows that 6 tens (60) is greater than 2 tens and 8 ones (28).