

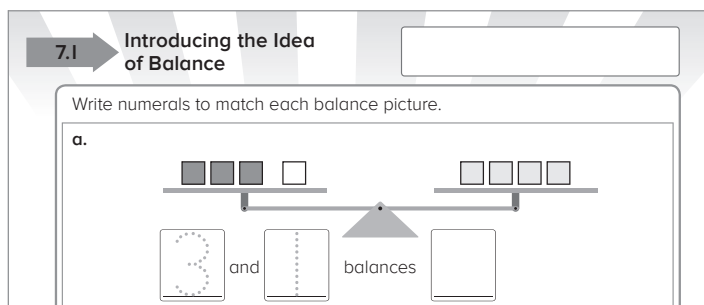
Core Focus

- Introducing the ideas of balance and equality
- Balancing addition sentences
- Sorting and identifying 3D objects



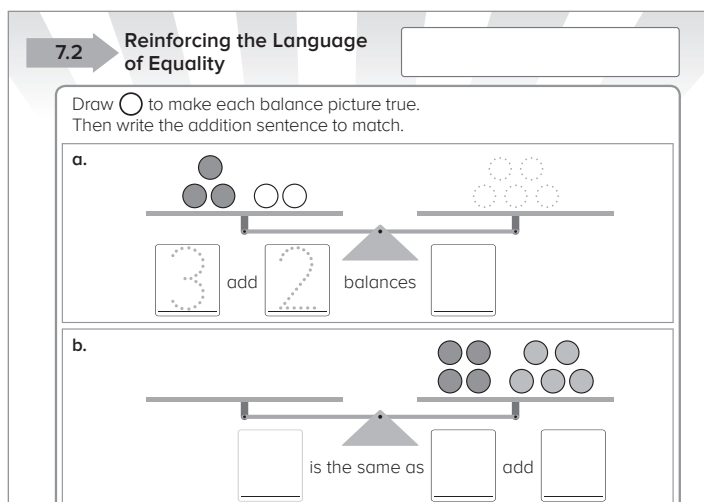
Balance and Equality: Addition

- Now that students have started to explore addition, it is time to investigate the concept of equality.
- Balancing real items in a pan balance or drawing pictures of items that balance gives students more opportunities to think about addition. This work extends the concepts students learned when using pan balances to compare the weights of objects.



In Lesson 1, students make groups of equal quantity and investigate “balance”.

- Students use manipulatives and pan balances to show that two quantities are equal, or balanced. For example, 3 and 2 together balance 5.



In Lesson 2, students read the expressions for equality: “balances”, “is the same number as”, and “is equal to”.

- Students learn that the **equals symbol** (=) means “is the same as” or “balances” or “is equal to.” Developing this important concept now helps students avoid later misconceptions about the equals symbol (e.g. many students think the equals symbol just means “write the answer”).

Ideas for Home

- Raise your arms out to the side, parallel to the ground, with one shoe of the same pair in each hand. Say, “These are equal. They balance.” Repeat with two different objects that vary in weight — one heavy and one light. While tilting the arm with the lighter object up and the arm with the heavier item down, say, “These are not equal. They do not balance.” Ask your child to try the same activity using different objects.
- Knowing the different combinations to make numbers is an important skill for addition. Give your child a set of small objects and ask them to find all the different ways to break the quantity into two parts. For example, a set of 7 can be broken into sets of 1 and 6, 2 and 5, and 3 and 4. Repeat with sets from 4 to 10.

Glossary

- Students match words to the **equals symbol** (=).

is equal to

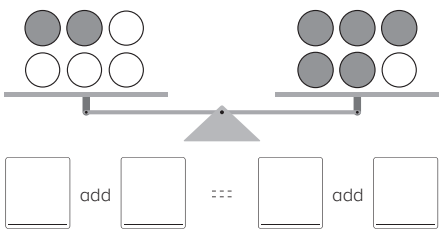
is the same numbers as

balances

7.4 Balancing Addition Sentences

I. Write numerals to match each side of the balance. Trace over = to complete the addition sentence.

a.



[] add [] = [] [] add [] = []

In Lesson 4, students balance two addition expressions (e.g. 2 add 4 = 5 add 1).

Geometry: 3D Shapes

- Much of the study of geometry involves the use of language. The language used in Kindergarten to talk about **3D** objects comes from suggestions made by the students. They describe different features of the objects but focus on describing objects by their surface (only flat surfaces, only curved surfaces, both flat and curved surfaces).

7.5a Sorting 3D Objects

Cut out the pictures. Then sort and paste them where they belong on page 54.



In Lesson 5, students feel objects and describe if they have curved or flat surfaces. Students then sort the objects by those attributes.

- After sorting and classifying the 3D objects, students learn the geometric names for each object (cone, cylinder, sphere, and cube).

7.6a Identifying 3D Objects

Cut out the names and the pictures. Paste them where they belong on page 56.

sphere cube cone cylinder

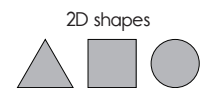


Ideas for Home

- Have your child look for cylinders, cubes, spheres, and cones in your home. Food cans are examples of cylinders, a gift box might be a cube, and a soccer ball is a sphere. Encourage your child to name the objects using the correct vocabulary.
- Help your child develop their spatial visualization skills by talking about the shapes you see around you. For example, talk about how a cereal box and a book are alike and different, in terms of shape. Or, ask what the difference is between a can of fruit and a drinking glass, even though both are cylinders.

Glossary

- Students learn the difference between 2D shapes and **3D** objects.



- Three-dimensional objects may have **flat** surfaces (sides of a box) or **curved** surfaces (a ball), or some of each (a can has a flat top and bottom and a curved side).

