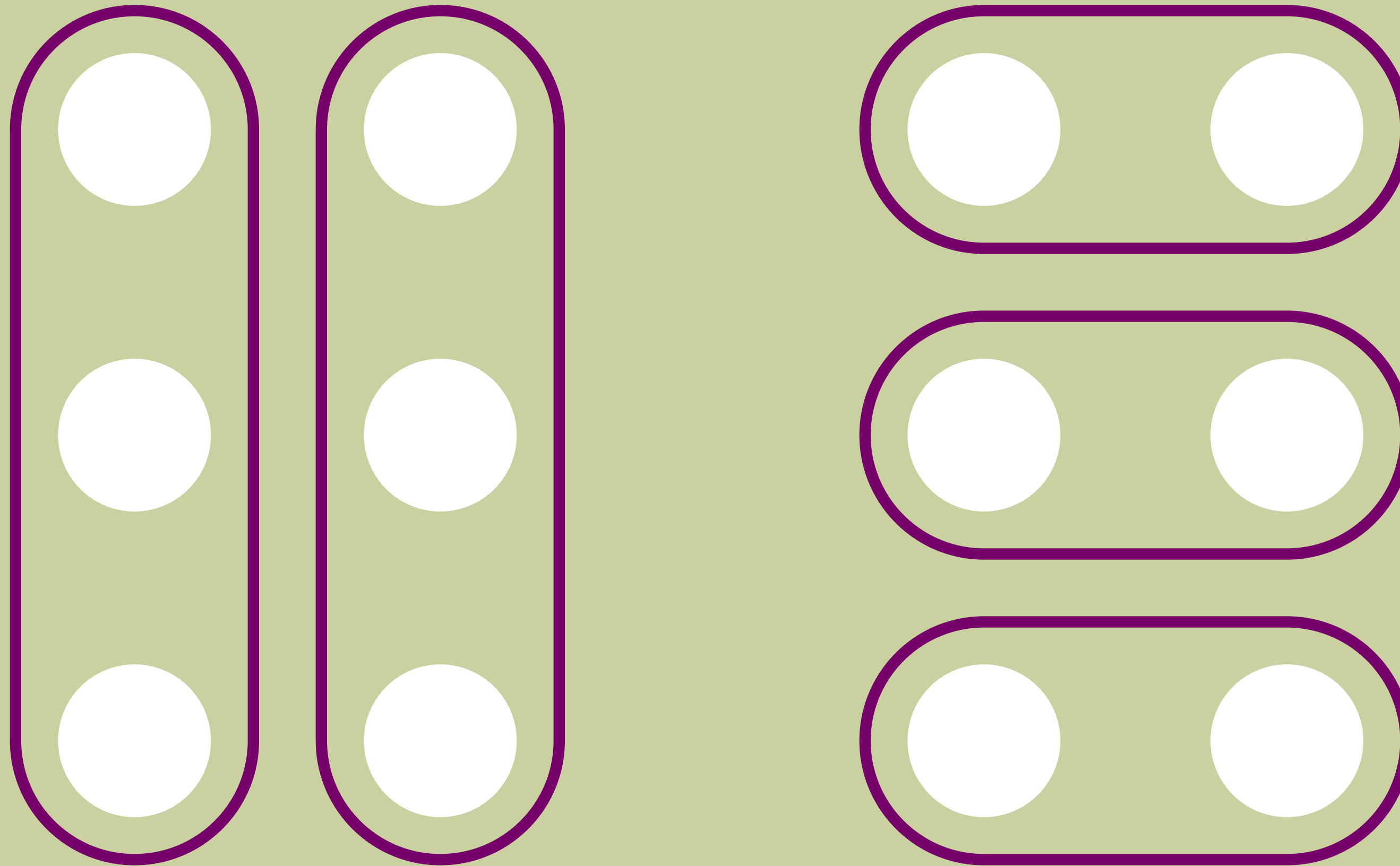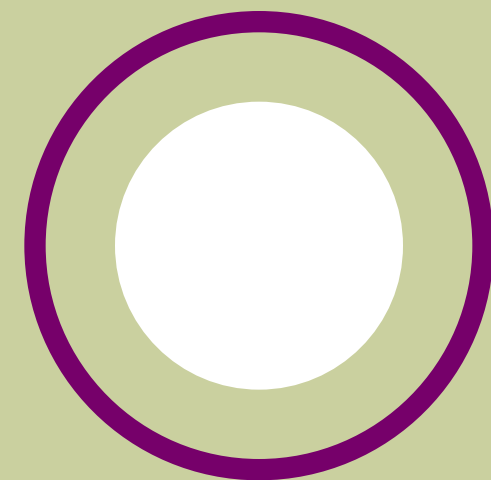# Quotition and Partition

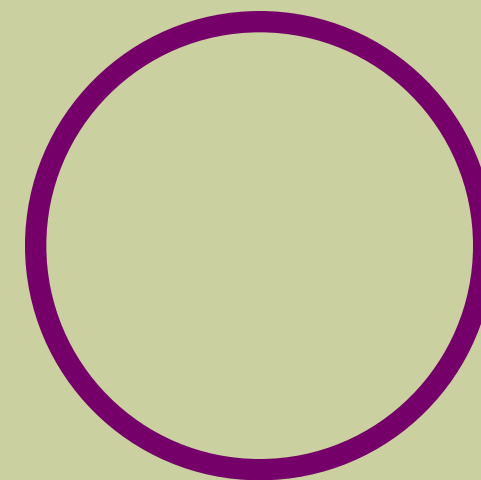*TWO INTERPRETATIONS OF THE DIVISION OPERATION*

Unit vs. Group

Unit

Group

When dividing a number by another, the way the problem was posed might hint towards a particular interpretation depending on the context, but thought of in a context independent way, there are two interpretations we can give the division operation. These are respectively called the **quotition** and the **partition**. The distinction can be thought of as being a **contained unit** vs. being a **container group**.

Two Interpretations

Imagine you are asked to **divide 6 units of something by 3**. There are two different ways this can be interpreted which correspond to two different processes.
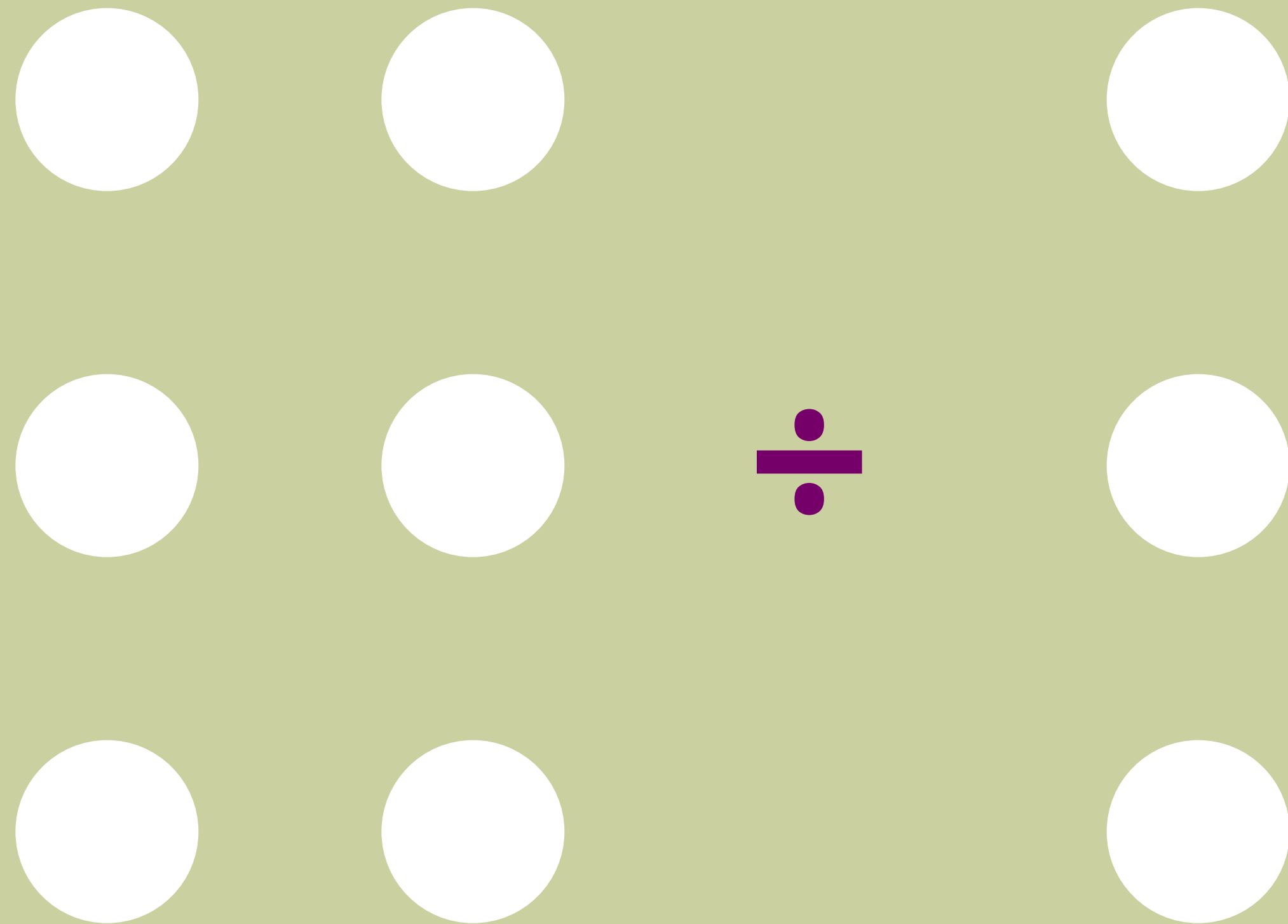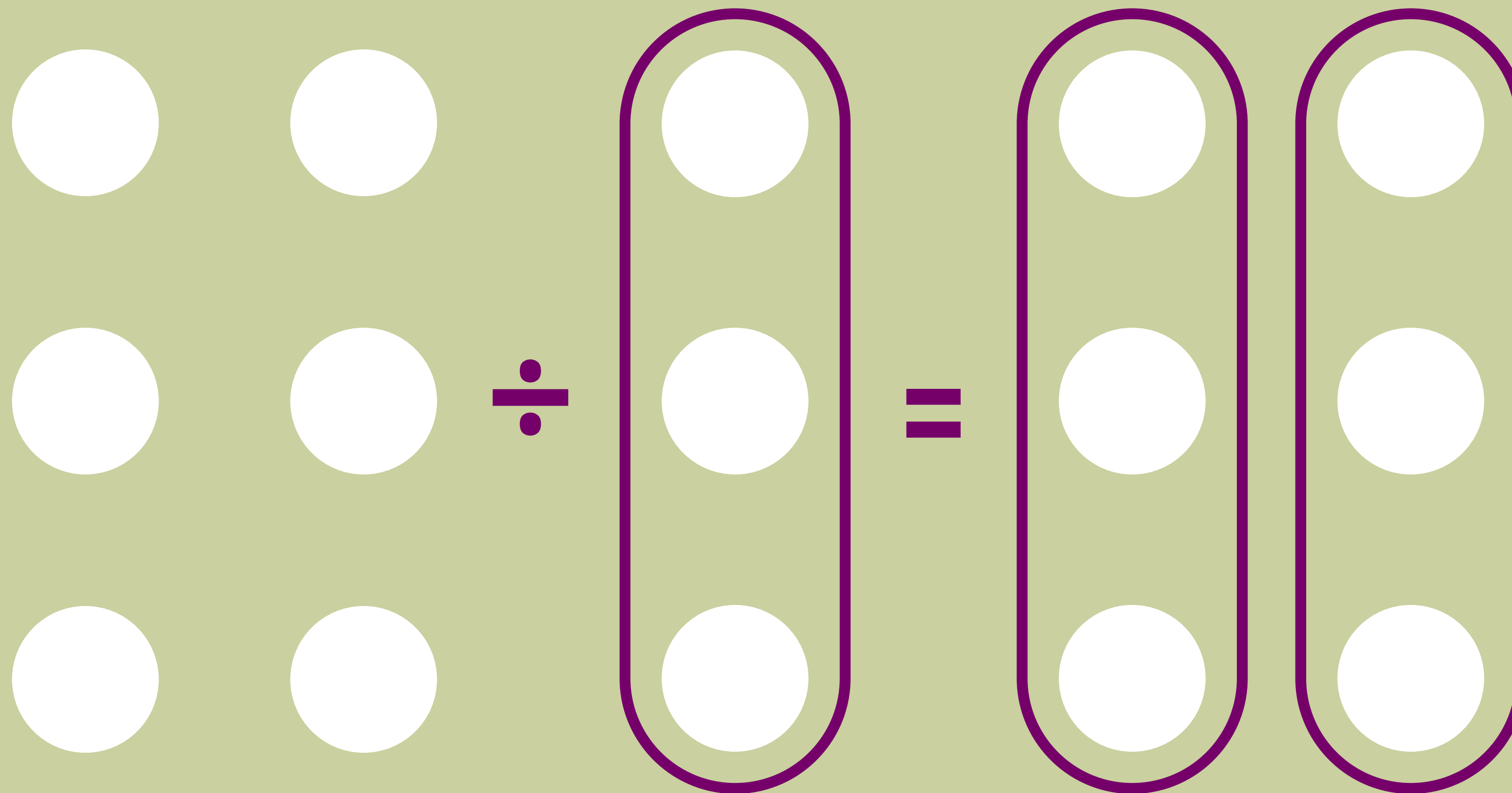
Interpretation I

QUOTITION

HOW MANY **GROUPS** OF 3 UNITS?

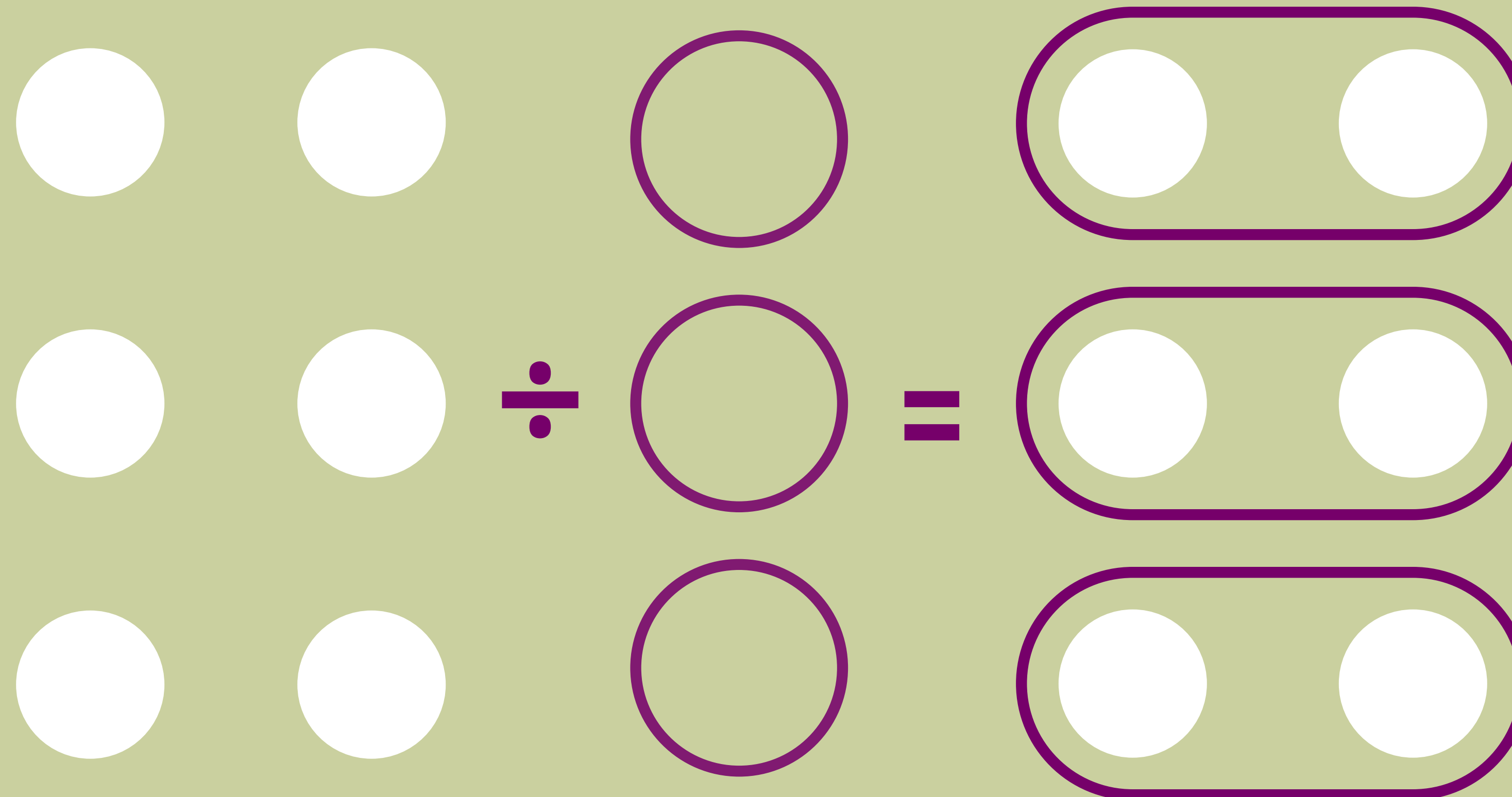6 units ÷ 3 units = **2 groups** of 3 units

This is the process whereby you enquire for **the number of groups** that are present in the dividend. So interpreting 6 divided by 3, you are asking, **how many groups of 3 units** are present inside 6, which gives us the answer of 2.

Interpretation II

PARTITION

HOW MANY **UNITS** IN 3 GROUPS?

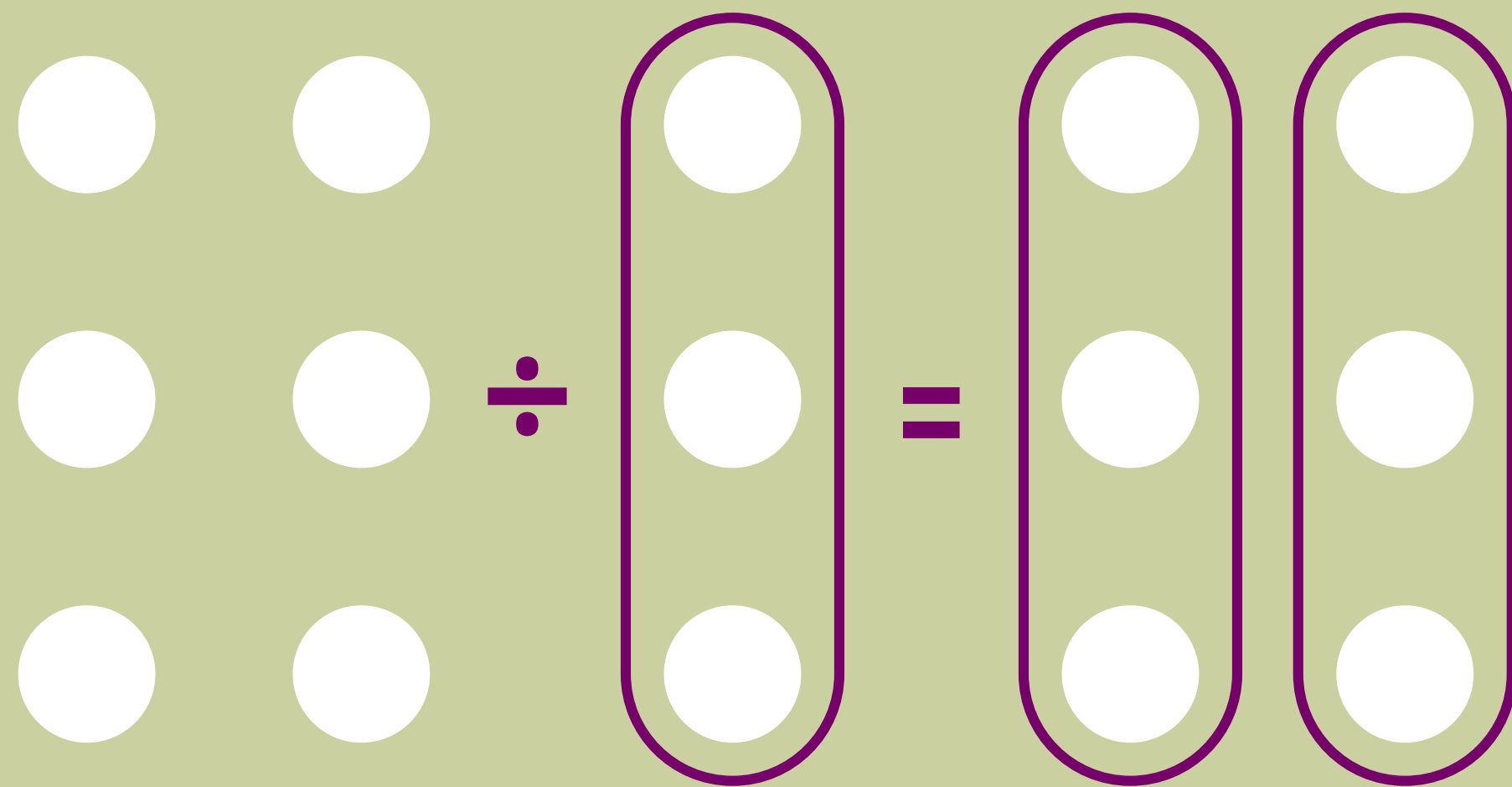6 units ÷ 3 groups = **2 units** in 3 groups

This is the process whereby you enquire for the **number of units** that are present in the partitions of the dividend. So interpreting 6 divided by 3, you are asking, **how many units are present** when 6 is partitioned into 3 groups, which gives us the answer 2.

Summary

QUOTITION
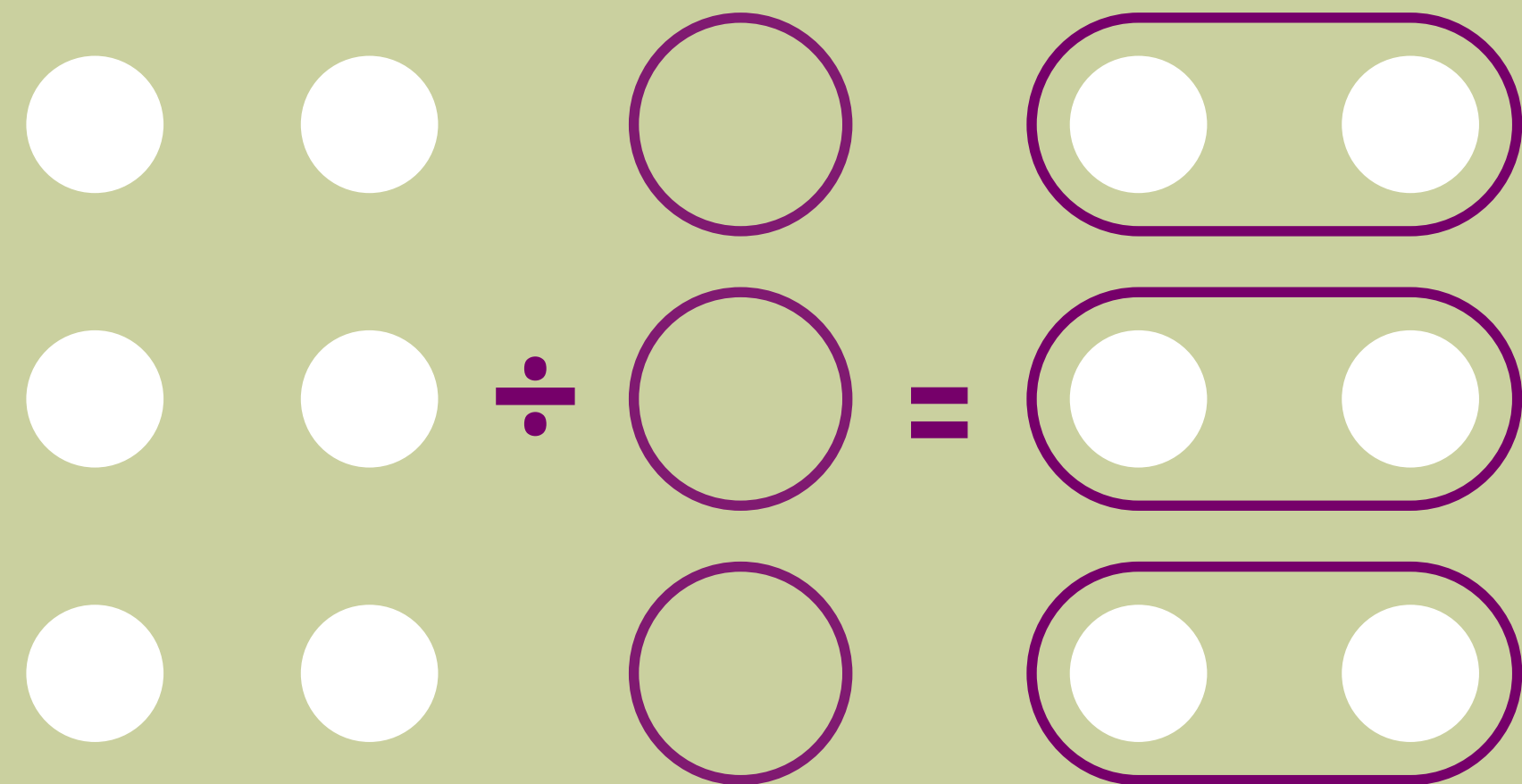
GROUP INTERPRETATION

How many groups of units?

6 units ÷ 3 units = 2 groups of 3 units

PARTITION

UNIT INTERPRETATION

How many units in groups?

6 units ÷ 3 groups = 2 units in 3 groups