

Subtract within 99

STEP 1. No Pencil, Paper or Computer, Practice Subtracting within 99 on a Transition Board.

1. Set up

Example

tens	units
4 tens, 4 units	2 units
2	7

From 64 ▶

Take 27 ▶

Remainder ▶

Where's the 27?

It's part of the 64

The numerals 2 and 7 remind me what to take from 64. The mice tell me why I shouldn't use place value pieces. Start. I can't take 7 units when there are only 4 units.

2. Regroup.
(only if you have to)

tens	units
3 tens, 4 units	7 units
2	7

Exchange a ten for 10 units.

That's a good swap!

Now there are only 5 tens!

That now looks like it's fifty-fourteen!

Now I can subtract (take away) the 7 units because there are 14 of them.

3. Subtract.

Also take down 2 tens from the 5

tens	units
3 tens, 4 units	7 units
2	7
2	7

Take 7 units from 14 and move them into the transition area.

Take down the 7 units

Subtract 2 tens from the 5 and move them also into the grey transition area.

4. What's left of the 64?

tens	units
3 tens, 4 units	7 units
2	7
3	7

Record what is left of the starting number

What's left of the 64?

37 remains

Use the numeral cards, 3 and 7 to show what remains of the original 64.

STEP 2. Use the Interactive SCRATCH Resource Practice Interactive Subtraction within 99

SUBTRACTION

27 from 64 leaves 37

That looks like fifty-fourteen!

<https://scratch.mit.edu/projects/193739328>

You do not need to know anything about Scratch to use this resource. If you are interested in the code, when online click *See inside*. For more resources see the Studio at <https://scratch.mit.edu/studios/5999446>

This online resource provides lots of interactive practice exactly similar to the offline work. You subtract a 2-digit number from another 2-digit number within 99, with or without regrouping. Click the green flag to get started.

1. Input any 2-digit number, 30 or higher.

This will be the 'top' number (64 in the example). It's called the *minuend*. You subtract a smaller number *from* the minuend. The computer calculates a lower number limit and asks you to input the bottom number.

2. Input a number lower than your first. The minuend must be greater than the bottom number, which is called the *subtrahend* (27 in the example). This is the number to be subtracted from the minuend.

The computer takes it from there. All you need to do is **CLICK** with the mouse pointer when instructed to do so, and make sense of what is happening.

NOTE to the Teacher or Parent: This PDF consists of 4 pages. This page shows how to *Subtract* on a Transition Board and it introduces the interactive SCRATCH resource. Page 2 contains a Match and Complete exercise with written practice. Page 3 is your own printable Transition Board. Page 4 is a sheet of numeral cards and symbols.

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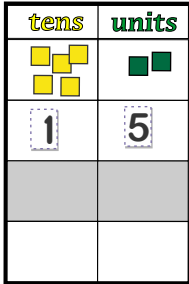
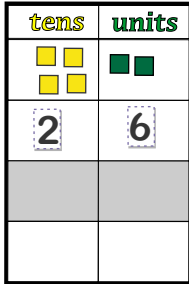
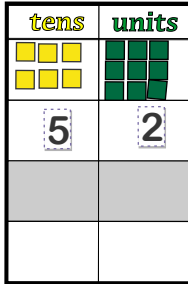
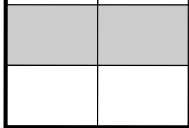
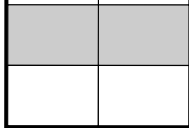
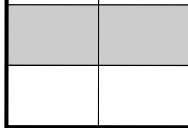
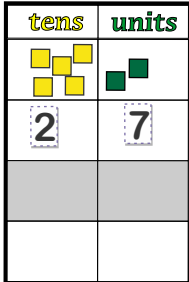
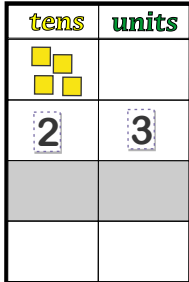
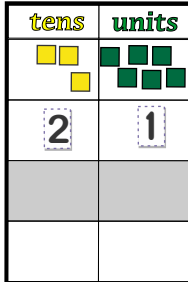
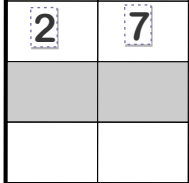
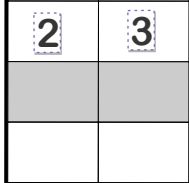
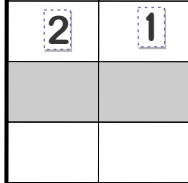
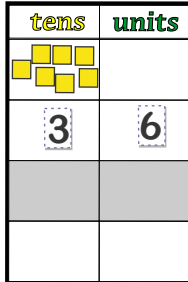
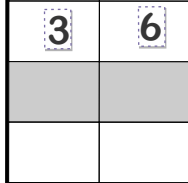
Subtraction Activity on the Transition Board

Remember, the number **from** which you subtract, is bigger than the number you are **taking away** (which is just a *part* of the bigger number). By subtracting, you want to find what's left (what is the *remainder*) of the bigger number. It's also known as the *difference*.

On a Transition Board, you **only** represent the '**From**' number on top with the coloured Tens and Units pieces. You can only show what you want to take away (or subtract) with Numeral cards. '**Take**' Units first and then **take** Tens '**From**' the top and move them into the grey transition area so that you finish with the *remainder* or *difference* between the two numbers in the top section.

Match and Complete

Here are eight Transition Boards labelled from **1 to 8**. Each is set up to match one of the subtraction exercises below, labelled from **a to h**.

	1.	2.	3.
From			
Take			
	5.	6.	7.
From			
Take			
	8.		
From			
Take			

Can you match each Transition Board above with one of the subtraction exercises below? Find each remainder (without pencil and paper), by using a Transition Board, or work each out on paper and write the remainder. Check your answer in the SCRATCH interactive. **Reminder:** Two of the exercises do **not** require you to regroup (which means *to exchange a TEN for ten ONES*)

Write the number of the matching Transition Board in the circle.

○	○	○	○	○
a. $\begin{array}{r} 52 \\ -15 \\ \hline \end{array}$	b. $\begin{array}{r} 73 \\ -45 \\ \hline \end{array}$	c. $42 - 26 = \square$	d. $69 - 52 = \square$	e. $40 - 23 = \square$
○	○	○	○	○
f. $36 - 21 = \square$	g. $70 - 36 = \square$			h. $52 - 27 = \square$

Sometimes the terms: '*Minuend*' - '*Subtrahend*' = '*Difference*' are used to describe the three numbers of subtraction.

Matching pairs: a, 5 b, 8 c, 7 d, 6 e, 3 f, 2 g, 4 h, 1

Transition Board - for Addition / Subtraction of Tens and Units

Print in colour and stick to waste cardboard. Get **Tens & Units** coloured squares on the Addition resource sheets.

tens

units

Numeral Cards and Symbols



Print and stick to waste cardboard before cutting into separate numerals cards.

1

2

3

4

5

6

7

8

9

0

1

2

3

4

5

6

7

8

9

0

**Symbols
(or Signs)**

