Unit 1: Numbers 0 to 10

Friendly Notes

Counting Numbers

We can count on from 0 to 10.
We can also count backwards from 10 to 0.

Writing Numbers in Words

zero one two three four five
six seven eight nine ten

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Comparing Numbers

Molly has 4 apples.

Sue has 4 pears.

Molly and Sue have the same number of fruit.

Vivian has 6 mangoes.

Molly and Vivian do not have the same number of fruit.
Molly has fewer fruit than Vivian.
Vivian has more fruit than Molly.

Which set has less?

Set A has 6 bees.
Set B has 4 snails.

Set B has less.
Unit 2: Number Bonds

Friendly Notes

Making Number Stories

There are 6 children.
2 are boys.
4 are girls.

2 and 4 make 6.

4 and 2 also make 6.

2, 4, and 6 make a number bond.
What other pairs of numbers make 6?
Look at these number bonds.

6 and 0 make 6.

0 and 6 make 6.

1 and 5 make 6.

5 and 1 make 6.

3 and 3 make 6.
Let us make an addition story.

There are 4 long rulers.
There are 3 short rulers.
There are 7 rulers altogether.

We can count on to add the number of rulers.

Begin with 4 and count on to 5, 6, and 7.

We put together 4 rulers and 3 rulers to get 7 rulers.
We can use number bonds to show addition.

We write the addition equations:

\[ 4 + 3 = 7 \]
\[ 3 + 4 = 7 \]

We can also write this way:

\[ 7 = 4 + 3 \]
\[ 7 = 3 + 4 \]

Add 4 to 3. Add 3 to 4. The answer is 7.

So, \( 4 + 3 = 3 + 4 \).

‘+’ means ‘add’. ‘=’ means ‘equal’.
Unit 4 : Subtraction Within 10

Friendly Notes

Subtraction

Subtraction means **taking away**.

Let us make a subtraction story.

There are **9** cupcakes.
Jack eats **5** cupcakes.
**4** cupcakes are left.

We write the subtraction equation:

\[ 9 - 5 = 4 \]

We say:
“Nine minus five equals four.”

‘–’ means ‘subtract’.

Cross out 5 cupcakes.
Methods of Subtraction

We can use number bonds to show subtraction.

\[ 9 = 4 + 5 \]
\[ 9 - 4 = 5 \]

\[ 9 - 5 = 4 \]

We can count backwards to subtract.

Subtract 4 from 10.
Begin with 10 and count backwards.

\[ -4 \]
\[ -1 \quad -1 \quad -1 \quad -1 \]

\[ 0 \quad 1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9 \quad 10 \]
**Unit 5 : Ordinal Numbers**

**Friendly Notes**

**Naming Position**

Ordinal numbers help us tell the position of a person or an object.

<table>
<thead>
<tr>
<th>Cardinal Numbers</th>
<th>Ordinal Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1st (first)</td>
</tr>
<tr>
<td>2</td>
<td>2nd (second)</td>
</tr>
<tr>
<td>3</td>
<td>3rd (third)</td>
</tr>
<tr>
<td>4</td>
<td>4th (fourth)</td>
</tr>
<tr>
<td>5</td>
<td>5th (fifth)</td>
</tr>
<tr>
<td>6</td>
<td>6th (sixth)</td>
</tr>
<tr>
<td>7</td>
<td>7th (seventh)</td>
</tr>
<tr>
<td>8</td>
<td>8th (eighth)</td>
</tr>
<tr>
<td>9</td>
<td>9th (ninth)</td>
</tr>
<tr>
<td>10</td>
<td>10th (tenth)</td>
</tr>
</tbody>
</table>

9th is spelled without an ‘e’: ‘ninth’, not ‘nineth’.

[Diagram showing ordinal numbers 1st to 10th with students in a line, some of whom are labeled with ordinal numbers.]
Ordinal numbers can be used to name positions from the left or right.

There are 5 fruits.

If we count from the left:

The papaya is 1<sup>st</sup> from the left.
The pear is 2<sup>nd</sup> from the left.
The orange is 5<sup>th</sup> from the left.

If we count from the right:

The orange is 1<sup>st</sup> from the right.
The banana is 2<sup>nd</sup> from the right.
The papaya is 5<sup>th</sup> from the right.

The orange is last from the left.
The papaya is last from the right.
## Unit 6: Numbers to 20

### Friendly Notes

These are the numbers 11 to 20. We learn to count and write these numbers in words.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>eleven</td>
<td>🐣🐣twitter</td>
<td>🐣twittertwitter</td>
</tr>
<tr>
<td>12</td>
<td>twelve</td>
<td>🐣twittertwitter</td>
<td>🐣twittertwitter</td>
</tr>
<tr>
<td>13</td>
<td>thirteen</td>
<td>🐣twittertwittertwitter</td>
<td>🐣twittertwittertwitter</td>
</tr>
<tr>
<td>14</td>
<td>fourteen</td>
<td>🐣twittertwittertwitter</td>
<td>🐣twittertwittertwitter</td>
</tr>
<tr>
<td>15</td>
<td>fifteen</td>
<td>🐣twittertwittertwitter</td>
<td>🐣twittertwittertwitter</td>
</tr>
<tr>
<td>16</td>
<td>sixteen</td>
<td>🐣twittertwittertwitter</td>
<td>🐣twittertwittertwitter</td>
</tr>
<tr>
<td>17</td>
<td>seventeen</td>
<td>🐣twittertwittertwitter</td>
<td>🐣twittertwittertwitter</td>
</tr>
<tr>
<td>18</td>
<td>eighteen</td>
<td>🐣twittertwittertwitter</td>
<td>🐣twittertwittertwitter</td>
</tr>
<tr>
<td>19</td>
<td>nineteen</td>
<td>🐣twittertwittertwitter</td>
<td>🐣twittertwittertwitter</td>
</tr>
<tr>
<td>20</td>
<td>twenty</td>
<td>🐣twittertwittertwitter</td>
<td>🐣twittertwittertwitter</td>
</tr>
</tbody>
</table>
To make bigger numbers easier to count, we can make groups of 10 first.

Count the stars.

Count on from 10:
10, 11, 12, ... 18

10 and 8 make 18.
10 + 8 = 18
There are 18 stars altogether.

Ordering and Comparing Numbers

When we compare two numbers, we check which number is greater and which is smaller.

Which number is greater? Count and compare.

Set A has 15 bees.

Set B has 12 bees.

There are 3 more bees in Set A than in Set B.
15 is greater than 12.
12 is smaller than 15.
When we compare two numbers, we use these words:

**greater than**  **smaller than**

When we compare more than two numbers, we use these words:

**the greatest**  **the smallest**

Set B has the smallest number.
Set C has the greatest number.

We can arrange numbers in order when we know how to count them in order.

Let us compare these numbers and arrange them in order.

(a) Begin with the greatest: 13, 10, 8, 4
(b) Begin with the smallest: 4, 8, 10, 13
Addition

We can first make 10 to help us add.

Add 8 and 5.

**Step 1:** Add 8 and 2 to make 10.
**Step 2:** Add 10 and 3. We get 13.

OR

**Step 1:** Add 5 and 5 to make 10.
**Step 2:** Add 10 and 3. We get 13.
We can add using known facts.

**Step 1:** Add 7 and 7 to make 14.
**Step 2:** Add 14 and 1. We get 15.

![Diagram showing addition]

Subtraction

We can first make 10, then subtract.

Subtract 9 from 15.

**Step 1:** We make a 10.
**Step 2:** Subtract 9 from 10. We get 1.
**Step 3:** Add 5 and 1. We get 6.

Subtract 6 from 14.

**Step 1:** Subtract 4 from 14. We get 10.
**Step 2:** Then we subtract the remaining 2 from 10. We get 8.
Related Addition and Subtraction Facts

6 + 5 = 11
5 + 6 = 11
11 − 5 = 6
11 − 6 = 5
Unit 7: Shapes

Friendly Notes

Common Shapes

These are some common shapes. These shapes can be used to make new shapes or form pictures.

Square    Rectangle    Triangle    Circle

What shapes can you see?

I can see rectangles and circles.  I can see rectangles, triangles, and a square.
These shapes are closed.

These shapes are not closed.
Some solids have flat surfaces. We can stack, roll, or slide objects.

These are flat surfaces.

This is not a flat surface.

I can stack these boxes.

I can roll this marble.

I can slide this ruler.

Some shapes have corners and sides.
We can group shapes in different ways.

By shape

By size

By color
By orientation

By number of sides and corners
Identifying Patterns

Look at the row of shapes below.
The shapes repeat in a certain way.
They form a pattern.

circle, square

circle, square

circle, ...

The shape that comes next is a square.

Here is another pattern of shapes.
We look at the colors of the shapes.

The shape that comes next is a gray square.

Here is another pattern of shapes.
We look at the sizes of the shapes.

The shape that comes next is the smallest circle.
Comparing Length

When we compare the lengths of two or more objects, we use these words:

- as long as
- as short as
- as tall as
- longer than
- shorter than
- taller than
- the longest
- the shortest
- the tallest

Do these pencils have the same length?
Let us compare their lengths.

A
B
C

Pencil A is longer than Pencil B.
Pencil C is shorter than Pencil B.
So, Pencil A is longer than Pencil C.
Pencil A is the longest.
Pencil C is the shortest.

Arrange the pencils from shortest to longest.
Pencil C, Pencil B, Pencil A
How tall are the boys? Let us compare how tall they are.

Chetan is shorter than Ming.
Ming is taller than Chetan.
Ming is as tall as Reggie.
Peter is taller than Chetan, Ming, and Reggie.
Peter is the tallest boy.
Chetan is shorter than Ming, Reggie, and Peter.
Chetan is the shortest boy.

Measuring Length

We can use objects to measure length.

We can use paper clips to measure the length of a papaya.
Use \( \text{\textbullet} \) as 1 unit.

We measure the papaya this way.

We do not measure the papaya this way.

The papaya is about 3 units long.
Unit 9 : Comparing Numbers

Friendly Notes

More or Less

We can compare numbers by counting, matching, or subtracting.

There are more bees than flowers.
There are fewer flowers than bees.

How many more bees than flowers are there?
Let us subtract to find the answer.

There are 7 bees.
There are 5 flowers.

7 − 5 = 2

7 is 2 more than 5.
5 is 2 less than 7.

There are 2 more bees than flowers.
There are 2 fewer flowers than bees.
We see that:

2 more than 5 is 7.
5 + 2 = 7

2 less than 7 is 5.
7 − 2 = 5
Unit 10: Graphs

Friendly Notes

Picture Graphs

We can use picture graphs to compare the number of items.

Caleb has 7 carrots.  
Daniel has 2 carrots.  
Emily has 4 carrots.

This is how our picture graph looks:

<table>
<thead>
<tr>
<th>Number of Carrots Each Child Has</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caleb</td>
</tr>
<tr>
<td>Daniel</td>
</tr>
<tr>
<td>Emily</td>
</tr>
</tbody>
</table>
Our picture graph may also look like this:

<table>
<thead>
<tr>
<th>Number of Carrots Each Child Has</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caleb</td>
</tr>
<tr>
<td>Daniel</td>
</tr>
<tr>
<td>Emily</td>
</tr>
</tbody>
</table>

From the picture graph, we can tell:
Caleb has 5 more carrots than Daniel.
Daniel has 2 fewer carrots than Emily.
Emily has 3 fewer carrots than Caleb.
Caleb, Daniel, and Emily have 13 carrots altogether.

Caleb has more carrots than Daniel and Emily.
Caleb has the most carrots.
Daniel has fewer carrots than Caleb and Emily.
Daniel has the least carrots.
Tally Charts

We can also use a tally chart to show how many carrots Caleb, Daniel, and Emily have.

This is how our tally chart may look:

<table>
<thead>
<tr>
<th>Number of Carrots Each Child Has</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caleb</td>
</tr>
<tr>
<td>Daniel</td>
</tr>
<tr>
<td>Emily</td>
</tr>
</tbody>
</table>

Each / stands for 1 carrot.

/ / / / / is a group of 5.

It stands for 5 carrots.
Bar Graphs

We can also use a bar graph to show the number of carrots each child has.

This is how our bar graph looks:

<table>
<thead>
<tr>
<th>Number of Carrots Each Child Has</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caleb</td>
</tr>
<tr>
<td>Daniel</td>
</tr>
<tr>
<td>Emily</td>
</tr>
</tbody>
</table>

Each ______ stands for 1 carrot.

Our bar graph may also look like this:

<table>
<thead>
<tr>
<th>Number of Carrots Each Child Has</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caleb</td>
</tr>
<tr>
<td>Daniel</td>
</tr>
<tr>
<td>Emily</td>
</tr>
</tbody>
</table>

Each ______ stands for 1 carrot.

From our bar graph, we can easily tell who has the most number of carrots or the least number of carrots.
Unit 11: Numbers to 40

Friendly Notes

Counting

These are numbers 21 to 40. We learn to count and write these numbers in words.

<table>
<thead>
<tr>
<th>Number</th>
<th>Number in Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>twenty-one</td>
</tr>
<tr>
<td>22</td>
<td>twenty-two</td>
</tr>
<tr>
<td>23</td>
<td>twenty-three</td>
</tr>
<tr>
<td>24</td>
<td>twenty-four</td>
</tr>
<tr>
<td>25</td>
<td>twenty-five</td>
</tr>
<tr>
<td>26</td>
<td>twenty-six</td>
</tr>
<tr>
<td>27</td>
<td>twenty-seven</td>
</tr>
<tr>
<td>28</td>
<td>twenty-eight</td>
</tr>
<tr>
<td>29</td>
<td>twenty-nine</td>
</tr>
<tr>
<td>30</td>
<td>thirty</td>
</tr>
<tr>
<td>31</td>
<td>thirty-one</td>
</tr>
<tr>
<td>32</td>
<td>thirty-two</td>
</tr>
<tr>
<td>33</td>
<td>thirty-three</td>
</tr>
<tr>
<td>34</td>
<td>thirty-four</td>
</tr>
<tr>
<td>35</td>
<td>thirty-five</td>
</tr>
<tr>
<td>36</td>
<td>thirty-six</td>
</tr>
<tr>
<td>37</td>
<td>thirty-seven</td>
</tr>
<tr>
<td>38</td>
<td>thirty-eight</td>
</tr>
<tr>
<td>39</td>
<td>thirty-nine</td>
</tr>
<tr>
<td>40</td>
<td>forty</td>
</tr>
</tbody>
</table>

We write 40 in words without the ‘u’: forty.
To count numbers more than 10, we can make groups of 10 first.

How many butterflies are there?

10, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29.

29 is 20 and 9.
20 + 9 = 29
There are 29 butterflies.
Tens and Ones

We can count and write numbers in tens and ones. It is easy to compare numbers written as tens and ones.

(a) Which is smaller, 24 or 20?

24 = 2 tens 4 ones
20 = 2 tens
20 is smaller.

24 is 4 more than 20.

(b) Circle the smallest number. Underline the greatest number.

15 is 1 ten and 5 ones.
20 is 2 tens.
24 is 2 tens and 4 ones.
37 is 3 tens and 7 ones.

1 ten is the smallest.
15 is the smallest number.
3 tens is the greatest.
37 is the greatest number.
Addition Within 40

(a) 24 + 3 = ?

Step 1: Add the ones first.
Add 4 ones and 3 ones.
4 + 3 = 7

Step 2: Add 20 and 7.
20 + 7 = 27

So, 24 + 3 = 27.

To add bigger numbers, we can make a 10 first.

(b) 27 + 5 = ?

Step 1: Add 27 and 3.
27 + 3 = 30

Step 2: Add 30 and 2.
30 + 2 = 32

So, 27 + 5 = 32.
Subtraction Within 40

(a) \(36 - 4 = ?\)

We subtract the ones.

![diagram]

(b) \(36 - 8 = ?\)

We cannot take away 8 ones from 6 ones. So, we take away from the tens.

\[
\begin{array}{c}
30 \quad 31 \quad 32 \quad 33 \quad 34 \quad 35 \quad 36 \\
-4 \\
\hline
26 \quad 10
\end{array}
\]

\[
36 - 8 = 28
\]
Adding Three Numbers

There are different ways to add three or more numbers.

(a) \(4 + 5 + 1 = ?\)

Add 4 ones and 5 ones.
\[4 + 5 = 9\]

Then we add 9 and 1.
\[9 + 1 = 10\]

So, \(4 + 5 + 1 = 10\).

OR

\[4 + 1 = 5\]
\[5 + 5 = 10\]
\[4 + 5 + 1 = 10\]

(b) \(7 + 5 + 8 = ?\)

We can make a 10 first.

Add 5 ones and 5 ones.
\[5 + 5 = 10\]

Next we add 2 and 10.
\[2 + 10 = 12\]

Then we add 12 and 8.
\[12 + 8 = 20\]

So, \(7 + 5 + 8 = 20\).
Unit 14 : Halves and Fourths

Friendly Notes

Halves

Half is 1 of 2 equal parts. 
2 halves make one whole.

Each shape is divided into 2 equal parts. 
Each part is a half. 
Half of each shape is shaded.

+ make one whole square.

is half of .

is also half of .

Each shape is divided into 2 parts. 
The parts are not equal. 
Each part is not a half.
Fourths

A fourth or a quarter is 1 of 4 equal parts. 4 fourths or 4 quarters make one whole.

Each shape is divided into 4 equal parts. Each part is a fourth. A fourth of each shape is shaded.

Each shape is divided into 4 parts. The parts are not equal. Each part is not a fourth.
Unit 15 : Time

Friendly Notes

Telling and Estimating Time

We can tell the time by looking at the numbers on these clocks.

It is 3 o’clock.
It is 3:00.

It is not 3 o’clock yet.
It is almost 3 o’clock.
It is about 3 o’clock.
It is close to 3 o’clock.
It is a little before 3 o’clock.

It is after 3 o’clock.
It is a little after 3 o’clock.
It is **half past 3**.
It is 3:30.

It is not half past 3 yet.
It is almost half past 3.
It is a little before half past 3.

It is about half past 3.
It is a little after half past 3.

Study these clocks. What time is it?

![Clock 1](image1.png)

The time is 3:00.

![Clock 2](image2.png)

The time is not 3:00.
It is after 12:00.

![Clock 3](image3.png)

The time is 3:30.

![Clock 4](image4.png)

The time is not 3:30.
It is after 6:00.
### Unit 16: Numbers to 120

#### Friendly Notes

<table>
<thead>
<tr>
<th>Number in words</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>2</td>
<td>102</td>
</tr>
<tr>
<td>3</td>
<td>103</td>
</tr>
<tr>
<td>4</td>
<td>104</td>
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<tr>
<td>5</td>
<td>105</td>
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<td>6</td>
<td>106</td>
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<td>7</td>
<td>107</td>
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<td>8</td>
<td>108</td>
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<td>16</td>
<td>116</td>
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<td>17</td>
<td>117</td>
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<td>18</td>
<td>118</td>
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<tr>
<td>19</td>
<td>119</td>
</tr>
<tr>
<td>20</td>
<td>120</td>
</tr>
</tbody>
</table>
**Tens and Ones**

62 = 6 tens 2 ones
74 = 7 tens 4 ones
98 = 9 tens 8 ones
105 = 10 tens 5 ones
   = 1 hundred 5 ones
118 = 11 tens 8 ones
   = 1 hundred 1 ten 5 ones
120 = 12 tens 0 ones
   = 1 hundred 2 tens

Write the numbers in words.

44 — forty-four
55 — fifty-five
62 — sixty-two
74 — seventy-four
98 — ninety-eight
105 — one hundred
118 — one hundred eighteen
120 — one hundred twenty
Estimation

When we estimate, we make a reasonable guess how many of an object there are. To find out exactly how many there are, we count.

There 10 stars in Jar A.
There are about 20 stars in Jar B.

Comparing and Ordering Numbers

We compare 2-digit numbers by comparing the tens first, then the ones.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tens</td>
<td>Ones</td>
<td>Tens</td>
<td>Ones</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

9 tens is greater than 3 tens and 5 tens.
90 is the greatest.

3 tens is smaller than 9 tens and 5 tens.
34 is the smallest.
If the tens are the same, we compare the ones.

54 is 5 tens 4 ones.
59 is 5 tens 9 ones.

9 ones is greater than 4 ones.
59 is greater than 54.

Arrange these numbers in order: 54, 34, 90, 59
Begin with the smallest: 34, 54, 59, 90
Begin with the greatest: 90, 59, 54, 34

We use the sign $>$ to show that one number is greater than the other.
We use the sign $<$ to show that one number is less than the other.

90 is greater than 34.
$90 > 34$

54 is less than 59.
$54 < 59$
Addition Within 100

To add a 2-digit number and a 1-digit number, we can count on or add with number bonds.

72 + 4 = ?

Step 1: Add 2 ones to 4 ones.
2 + 4 = 6

Step 2: Add 70 and 6.
70 + 6 = 76

So, 72 + 4 = 76.

We can also place the numbers one on top of the other and add as shown.

4 ones must be placed below 2 ones, not below 7 tens.
To add a 2-digit number and a 1-digit number, we can also make a ten first.

78 + 4 = ?

\[\begin{array}{cccccccc}
\hline
& & & & & & & & \\
& & & & & & & & \\
& & & & & & & & \\
& & & & & & & & \\
& & & & & & & & \\
& & & & & & & & \\
& & & & & & & & \\
& & & & & & & & \\
\hline
\end{array}\]

\[78 + 4 = 70 + 10 + 2 = 82\]

**Step 1:** Add 8 ones and 2 ones.
\[8 + 2 = 10\]

**Step 2:** Add 7 tens, 1 ten, and 2 ones.
\[70 + 10 + 2 = 82\]

So, 78 + 4 = 82.
To add two 2-digit numbers, we can add the tens first.

\[ 72 + 14 = ? \]

**Step 1:** Add 72 and 10.
\[ 72 + 10 = 82 \]

**Step 2:** Add 82 and 4.
\[ 82 + 4 = 86 \]

So, \[ 72 + 14 = 86. \]

We can also place the numbers one on top of the other and add as shown.

\[
\begin{array}{c}
72 \\
+ 14 \\
\hline
6 \\
\end{array}
\]

Add the ones.
2 ones + 4 ones = 6 ones

\[
\begin{array}{c}
72 \\
+ 14 \\
\hline
86 \\
\end{array}
\]

Add the tens.
7 tens + 1 ten = 8 tens
Subtraction Within 100

To subtract a 1-digit number from a 2-digit number, we can count backwards or subtract with number bonds.

\[ 59 - 7 = ? \]

**Step 1:** Subtract 7 ones from 9 ones.

\[ 9 - 7 = 2 \]

**Step 2:** Add 5 tens and 2 ones.

\[ 50 + 2 = 52 \]

So, \( 59 - 7 = 52 \).

We can also place the numbers one on top of the other and subtract as shown.

\[
\begin{array}{c}
59 \\
- 7 \\
\hline \\
2 \\
\end{array}
\]

Subtract the ones.

9 ones \(-\) 7 ones

\[ = 2 \text{ ones} \]

\[
\begin{array}{c}
59 \\
- 7 \\
\hline \\
52 \\
\end{array}
\]

Subtract the tens.

5 tens \(-\) 0 tens

\[ = 5 \text{ tens} \]
To subtract a 1-digit number from a 2-digit number, sometimes we have to change 1 ten into 10 ones.

55 – 6 = ?

5 ones is less than 6 ones. We cannot take away 6 ones from 5 ones. We change 1 ten into 10 ones.

**Step 1:** Subtract 6 from 15.

\[
10 - 6 = 4
\]

55 – 6

45 + 4 = 49

So, 55 – 6 = 49.
To subtract a 2-digit number from another 2-digit number, we can subtract the tens first.

54 – 23 = ?

Step 1: Subtract 20 from 54.
54 – 20 = 34

Step 2: Subtract 3 from 34.
34 – 3 = 31

So, 54 – 23 = 31.

We can also place the numbers one on top of the other and subtract as shown.

\[
\begin{array}{c}
54 \\
- 23 \\
\hline
1
\end{array}
\]

Subtract the ones.
4 ones – 3 ones = 1 one

\[
\begin{array}{c}
54 \\
- 23 \\
\hline
31
\end{array}
\]

Subtract the tens.
5 tens – 2 tens = 3 tens
## Unit 17: Money

### Friendly Notes

### Value of Money

These are the coins and bills we use in the US. We talk about the value of coins in cents (¢) and the value of bills in dollars ($).

<table>
<thead>
<tr>
<th>Value of 1 coin/bill</th>
<th>We can change 1 of this for</th>
<th>How do we know this?</th>
</tr>
</thead>
<tbody>
<tr>
<td>penny 1¢</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>nickel 5¢</td>
<td>5 pennies</td>
<td>Value of 5 pennies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$= 1¢ + 1¢ + 1¢ + 1¢ + 1¢</td>
</tr>
<tr>
<td>dime 10¢</td>
<td>10 pennies OR 2 nickels</td>
<td>Value of 10 pennies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$= 1¢ + 1¢ + 1¢ + 1¢ + 1¢ + 1¢ + 1¢ + 1¢ + 1¢ + 1¢</td>
</tr>
<tr>
<td>quarter 25¢</td>
<td>25 pennies OR 5 nickels OR 2 dimes and 1 nickel</td>
<td>Value of 5 nickels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$= 5¢ + 5¢ + 5¢ + 5¢ + 5¢</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value of 2 dimes and 1 nickel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$= 10¢ + 10¢ + 5¢</td>
</tr>
<tr>
<td>Currency</td>
<td>Value</td>
<td>Equal Value</td>
</tr>
<tr>
<td>-------------</td>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>half-dollar</td>
<td>50¢</td>
<td>50 pennies</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 nickels</td>
<td></td>
<td>Value of 10 nickels</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td>= 5¢ + 5¢ + 5¢ + 5¢ + 5¢ + 5¢ + 5¢ + 5¢ + 5¢ + 5¢</td>
</tr>
<tr>
<td>5 dimes</td>
<td></td>
<td>Value of 5 dimes</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td>= 10¢ + 10¢ + 10¢ + 10¢ + 10¢</td>
</tr>
<tr>
<td>2 quarters</td>
<td></td>
<td>Value of 2 quarters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>= 25¢ + 25¢</td>
</tr>
<tr>
<td>one dollar</td>
<td>$1</td>
<td>2 half-dollars</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td>Value of 2 half-dollars</td>
</tr>
<tr>
<td></td>
<td></td>
<td>= 50¢ + 50¢</td>
</tr>
<tr>
<td>five dollars</td>
<td>$5</td>
<td>5 one-dollar bills</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td>Value of 5 one-dollar bills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>= $1 + $1 + $1 + $1 + $1</td>
</tr>
<tr>
<td>ten dollars</td>
<td>$10</td>
<td>10 one-dollar bills</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td>Value of 2 five-dollar bills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>= $5 + $5</td>
</tr>
<tr>
<td>twenty dollars</td>
<td>$20</td>
<td>20 one-dollar bills</td>
</tr>
<tr>
<td>---------------</td>
<td>-----</td>
<td>-------------------</td>
</tr>
</tbody>
</table>

- Value of 2 ten-dollar bills $= 10 + 10$
- Value of 4 five-dollar bills $= 5 + 5 + 5 + 5$

How much money is there?
Which set has a greater amount of money?

Set A has $9.
Set B has $27.

Set B has a greater amount of money.

We add the value of the bills in each set, and not the number of bills in each set.
We add or subtract to find the cost of things or how much more they cost than others.

Gwen has $15.
She wants to buy a doll and a toy drum.

(a) Which costs more? How much more?
(b) How much do the doll and toy drum cost altogether?
(c) How much more money does Gwen need to buy the doll and the toy drum?

(a) The doll costs more than the toy drum.
Subtract $8 from $10.
10 – 8 = 2

The doll costs $2 more than the toy drum.
The toy drum costs $2 less than the doll.

The doll is more expensive than the toy drum.
The toy drum is cheaper than the doll.

(b) 10 + 8 = 18
They cost $18 altogether.

(c) 18 – 15 = 3
Gwen needs $3 more.