**Subject:**       **Mathematics**

**Grade:**          2

**Strand:**          Numbers

Duration:          60 mins

Topic:          Place Value

**Sub-Topic:**          Tens and Ones

**Focus Question:**          What is the use of place value in my environment**?**

**Standard:**          Carry out the processes of place value

**Attainment Target:**

   **-** Give and receive information

   -Know the values of numbers

   -Associate numerals with their names

**Bench Mark:** Read and write numbers name

**Vocabulary:** place value, abacus, Diene's block

**Objectives:**    By the end of the lesson, students should be able to:

   (a) Interpret 2 digit numerals 11- 99 as tens and ones
   (b) Identify the place value of two digit numbers

**Prerequisite Knowledge:** Students should already know:

   • How to count to 100.

**Materials/Manipulative:** Counters, Base ten blocks (units and longs), spinner, number card, hundred chart

**Content Outline:**

Place value is the position of each digit of a number. The number increases by a power of ten

(10) each time one goes to the left and going from left to right we decrease by a power of ten

(10). Each digit has a value depending on its place and face.

**Engage**

Students will be engaged in the playing of the game, "Ten and …" They will need their counters or the base ten blocks and a spinner with the numbers 0 to 9. Students can work in small groups or pairs. One student from each group or pair will spin the wheel twice and the others use each digit to create 2 different numbers. Students will then use the counters or base ten blocks to represent the number, for example, for, 27 they would shout, 2 tens and 7 ones and for 91 they would shout 9 tens and 1 one.

**Explore:** Learners will be engaged in a class discussion about the strategy they used to decipher the place value of each digit. Students will listen to their peers' response to learn new strategies of finding the place values of two digits numbers.

**Explain:**

Learners will use their counters to represent different numbers, for example: 37.
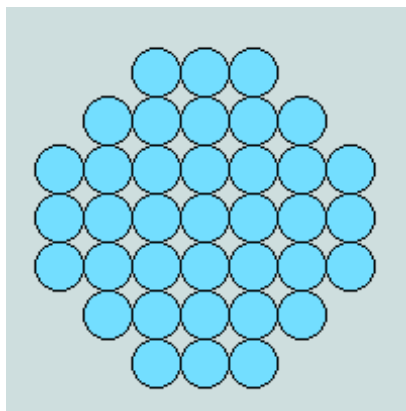
They will now group 37 in different ways, whether in sets of 2s or 5's or 10's. They will engage into conversations about the number of groups they have when they group the number into groups of 2's as opposed to group of 5's, etc. Teacher will ask students to now specifically group 37 into tens. They will explain what they notice by using the language of tens and ones, for example:



**Elaborate**

Learners will now be engaged in a game of, "I Spy". Teacher will split the class into two groups. One group will be given a clue of a number according to the number of tens and ones that exist in that number, for example: I spy a number that has nine tens and zero ones. Which number am I? One member from the other team will go to the hundred chart to find that number, for example:

## Hundred Chart

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

Students will also draw models such as the Diene's block or abacus to represent any given number of their choice.

**Elaborate**

Learners, in their groups, will be engaged in the playing of the game "Domino ……" They will use the dominoes below to match the numbers with their correct representation as tens and ones or units. For example: If after shuffling the domino, the first player poses this card,
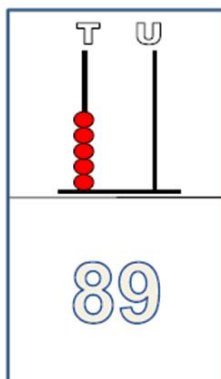
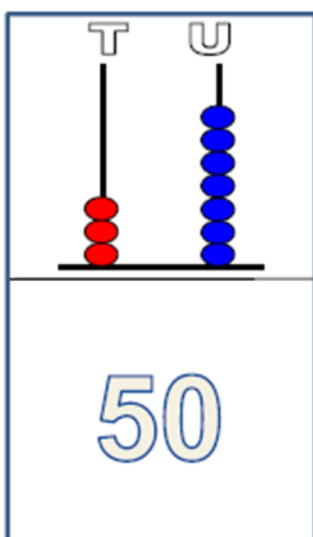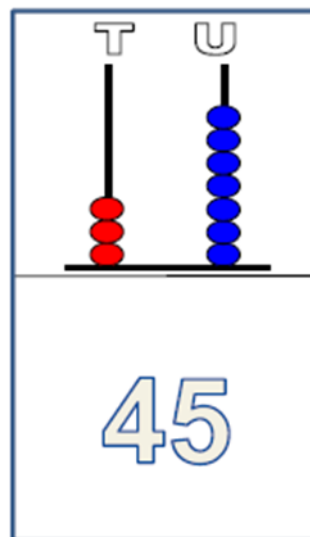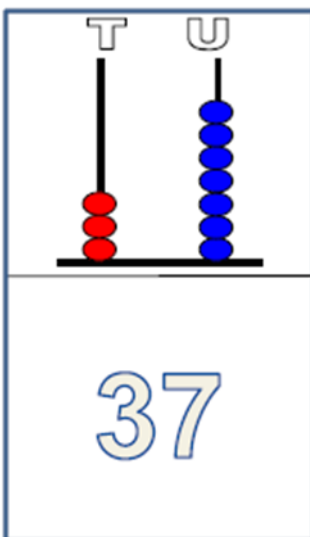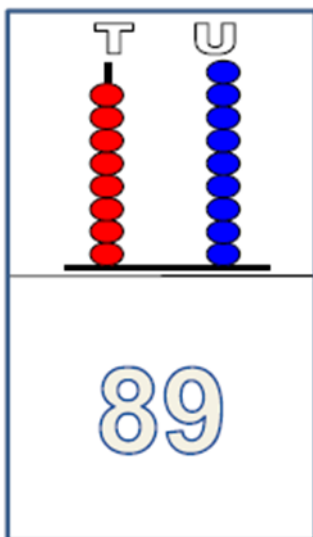then the next player could play either of these cards,
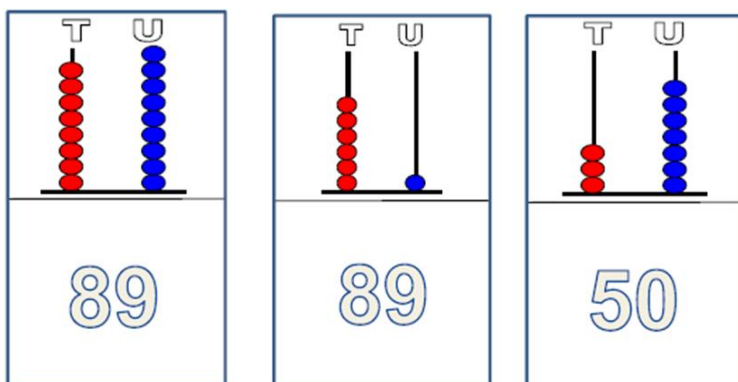


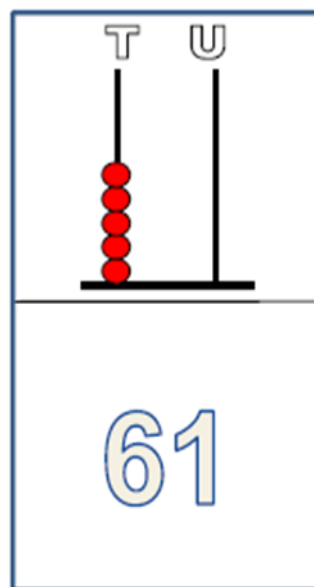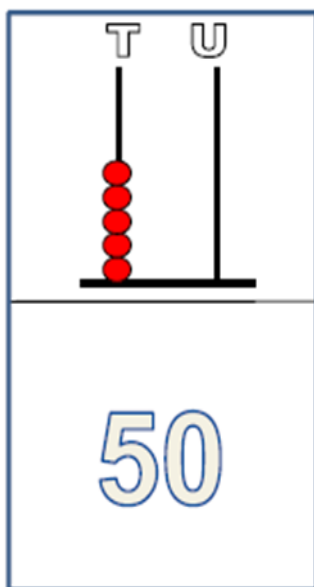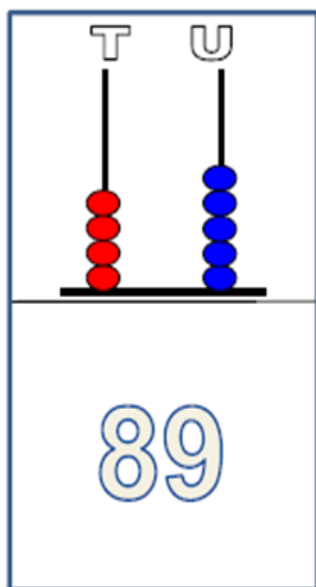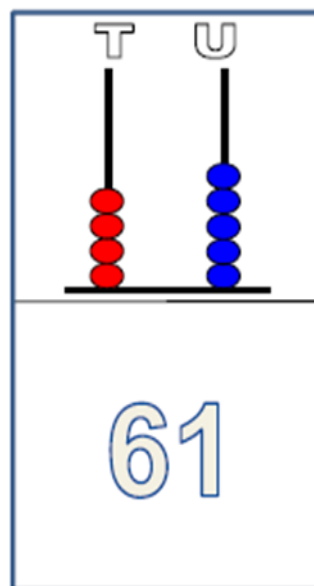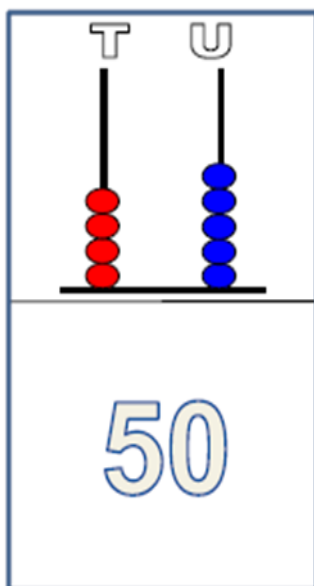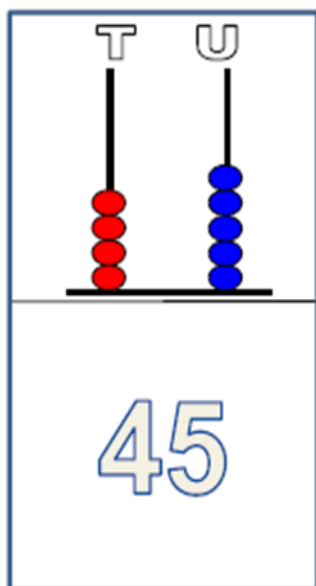The first team to finish the game, matching the number correctly, wins.

Learners will also write on a snippet of paper, a rule for determining the number of tens and ones or units that exist in a number.  Individuals will be chosen randomly to read what they wrote.
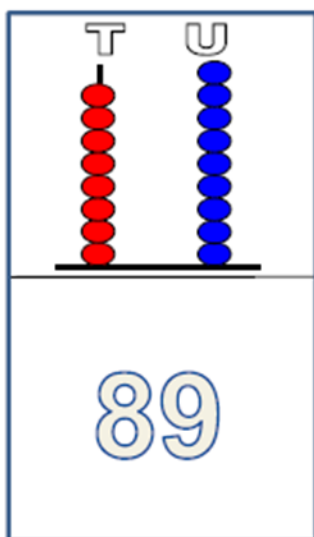
**Resource Materials**

**Domino Pieces**

| T U | T U | T U |
|---|---|---|
| 12 | 23 | 37 |

| T U | T U | T U |
|---|---|---|
| 45 | 12 | 12 |

| T U | T U | T U |
|---|---|---|
| 89 | 37 | 45 |

| T U | T U | T U |
|---|---|---|
| 50 | 61 | 37 |

| T U | T U | T U |
|---|---|---|
| 45 | 50 | 61 |

| T U | T U | T U |
|---|---|---|
| 89 | 50 | 61 |

| | | |
|---|---|---|
| T U <br> 89 | T U <br> 61 | T U <br> 89 |
| T U <br> 89 | | |
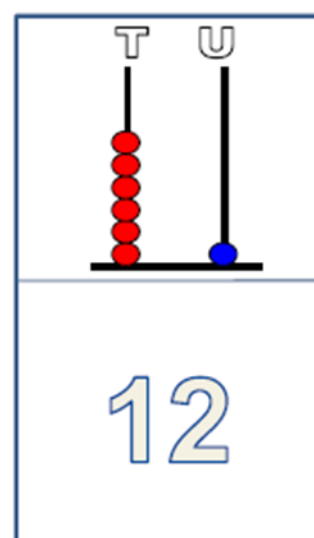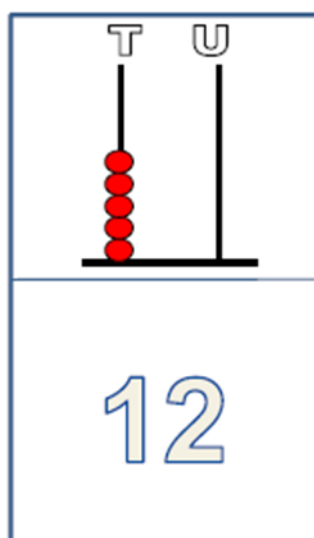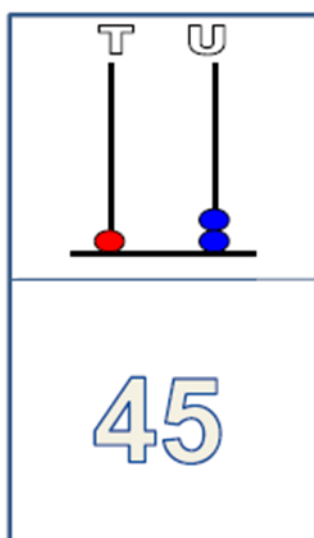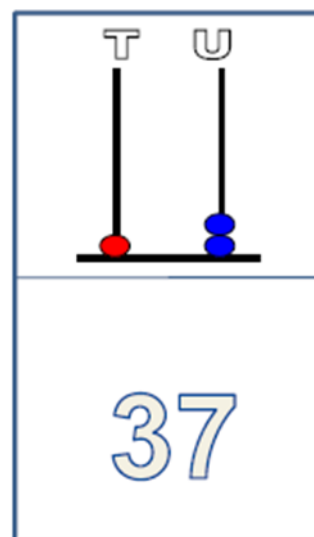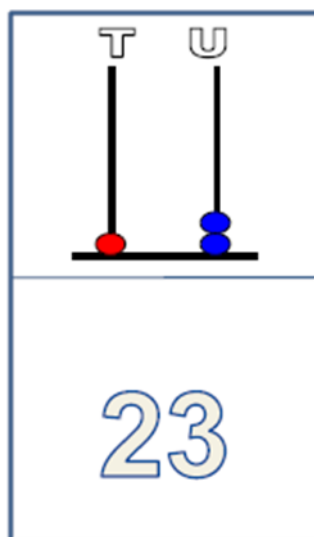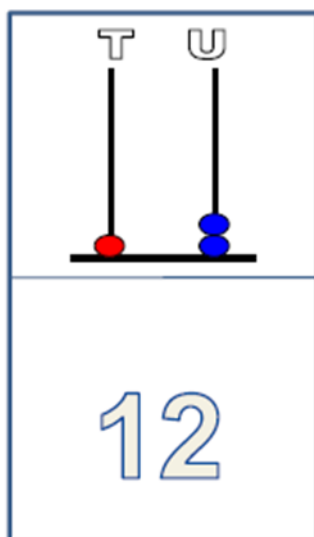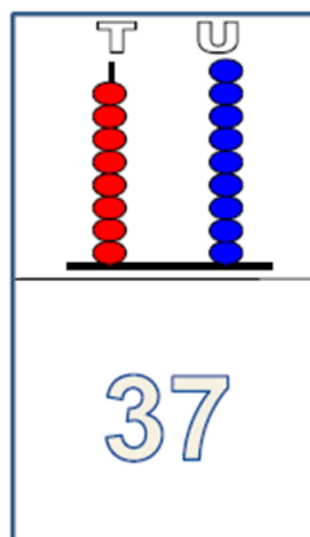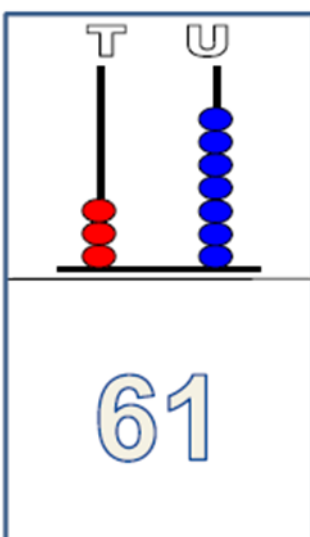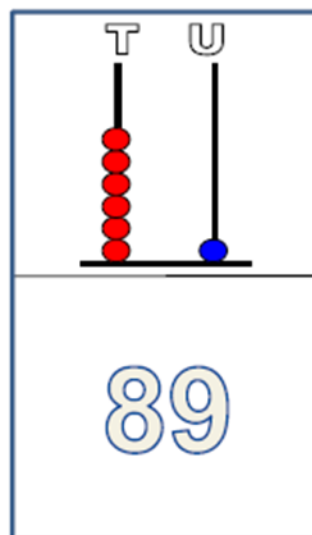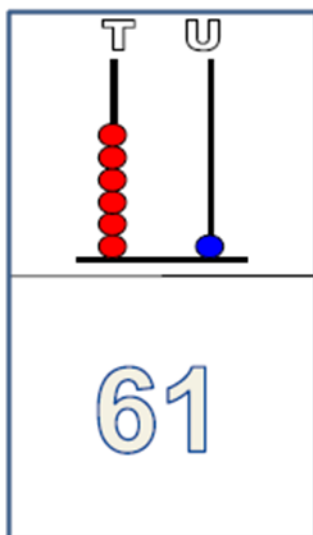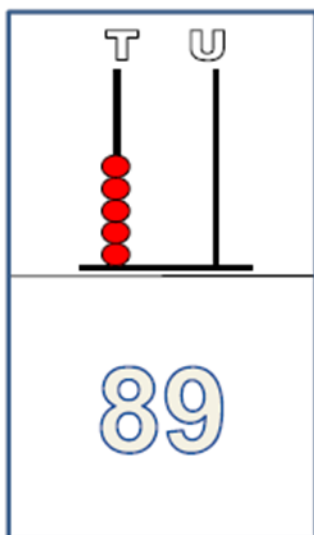
**Spinner**
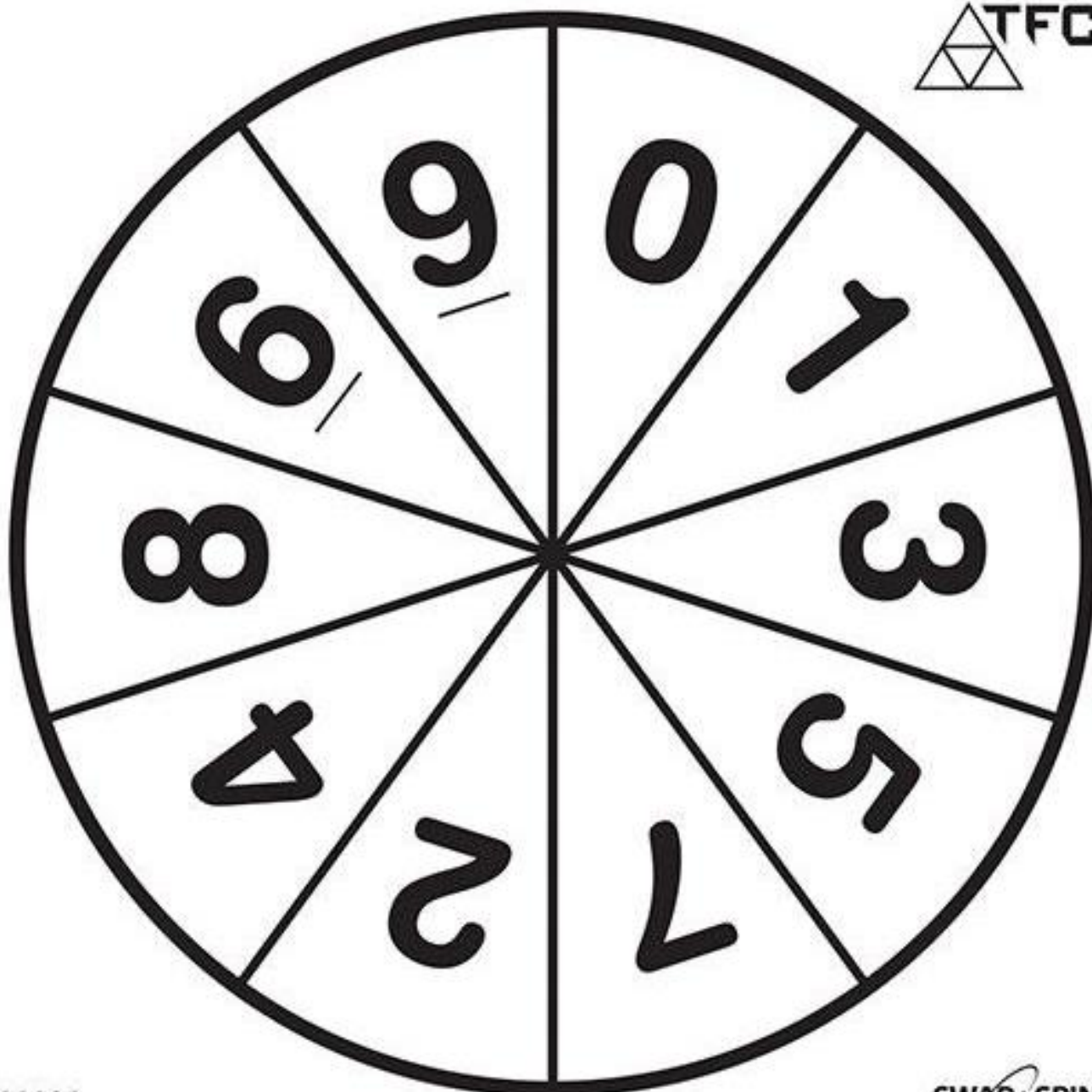
**Hundreds Chart**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
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| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

**Number Cards**

| | | | | |
|---|---|---|---|---|
| 0 | 1 ★ | 2 ★★ | 3 ★★★ | 4 ★★★★ |
| 5 ★★★★★ | 6 ★★★★★★ | 7 ★★★★★★★ | 8 ★★★★★★★★ | 9 ★★★★★★★★★ |