

Lesson 60.
Discovering Numbers.

Take a deep breath my dears, our Number Lesson will encompass quite a huge area. We need to learn:

1. The names of numbers : as in one, two, three etc. also known as Cardinals or सङ्ख्यावाचक ।
 2. The Ordinal form of numbers: as in first, second, third etc. They are called क्रमवाचक ।
 3. How to say once, twice thrice etc.
 4. How to say double, triple, four times
 5. How to say " one way of doing something " "two ways ...", " three ways..." etc.
 6. How to say "one kind of ...", " "two kinds of..." etc.
 7. How to read dates
 8. How to read page numbers.
 9. How to say how old you are,(though it is impolite to ask that of a lady.)
 10. How to talk "fractions,"
And
 11. How to read time.
- But as is the most sensible thing to do when faced with a " How to.." list as long as this, we will begin at the very beginning.

New Concept:

Numbers in Sanskrit, are adjectives. They will follow our noun as faithfully as they know how.

The first four numbers: 1, 2, 3 and 4 have different names for the three genders.

All the rest have a single name for the three genders.

Inference that you will make:

So the 1 in 1 boy, 1 girl and 1 fruit will be written differently?
(Yup!)

Ditto for the 2, 3 and 4 in two, three and four boys, girls and fruits? (Yup!)

Five onwards, the number name for the boys, girls and fruits as in the " 5 "
in 5 boys, 5 girls and 5 fruits remains the same? (Yup!)

If numbers are adjectives, would it mean that in a sentence like... Rain fell
on the seven boys' head.... since the boys' would be taken from the ष. वि , so
would the number seven? That numbers ALSO have विभक्ति s ????? (Yup!)

Good news:

It's not as bad as it looks. In fact, it's fairly simple. All we have to do is go
forward step by step.

Understanding the Cardinals or सङ्ख्यावाचक ।

Step 1.

- Place your Number List in front of you.
- Let's just concentrate on the first 10 numbers.
- The natural combinations (in the प्रथमा विभक्ति) would be:

पुंलिङ्ग	नपुंसकलिङ्ग	स्त्रीलिङ्ग
एकः बालकः	एकं फलम्	एका बालिका
द्वौ बालकौ	द्वे फले	द्वे बालिके
त्रयः बालकाः	त्रीणि फलानि	तिस्रः बालिकाः
चत्वारः बालकाः	चत्वारि फलानि	चतस्रः बालिकाः
पञ्च बालकाः	पञ्च फलानि	पञ्च बालिकाः
षट् बालकाः	षट् फलानि	षट् बालिकाः
सप्त बालकाः	सप्त फलानि	सप्त बालिकाः
अष्ट/ अष्टौ बालकाः	अष्ट/ अष्टौ फलानि	अष्ट/ अष्टौ बालिकाः
नव बालकाः	नव फलानि	नव बालिकाः
दश बालकाः	दश फलानि	दश बालिकाः

Naturally even if the '1' does have three gender names AND it does have विभक्ति s, since it is singular, we can have only the एकवचन forms.

Naturally, even if the '2' does have three gender names AND it does have विभक्ति s, since it is dual, we can have only the द्विवचन forms.

Naturally the rest (upto number 18) even if they do have विभक्ति s, since they are plural, we can have only the बहुवचन forms.

Step 2.

- Place the विभक्ति tables of all the three "1 's" in front of you.
Read the following sentences to see how the विभक्ति table is used.
(To make things easy, let's work on each विभक्ति table gender wise.)
- एकः बालकः तत्र अस्ति ।
- अहम् एकं बालकं पश्यामि ।
- एकेन बालकेन सह अहं विद्यालयं गच्छामि ।
- एकस्मै बालकाय सः पुस्तकं यच्छति ।
- एकस्मात् बालकात् सा भयम् अनुभवति ।
- एकस्य बालकस्य स्यूतः अत्र अस्ति ।
- एकस्मिन् बालके विश्वासः अस्ति ।

Step 3.

- Use the same principle to form sentences for the नपुंसकलिङ्ग and the स्त्रीलिङ्ग .

Step 4.

- Use the given विभक्ति tables for the numbers 2, 3 and 4 in exactly the same manner.

Step 5.

- Numbers 5 to 18 have only बहुवचन forms. The numbers 10- 18 are all declined like the number 10.

Step 6.

- Numbers 19- 99 are feminine: If you notice all the numbers that end in the तिः for example विंशतिः or अशीतिः, will naturally be declined like मतिः **BUT** the declensions 19 onwards are all in the SINGULAR form because the word मतिः is singular. Gottitt?

Example: I see 83 birds = अहं अशीतिं खगान् पश्यामि ।

She goes with 24 girls to the cinema. = सा चतुर्विंशत्या बालिकाभिः सह चित्रपटगृहं गच्छति ।

Though the numbers themselves are feminine, the same form is used for all three genders: द्वाविंशतिः बालकाः , द्वाविंशतिः फलानि , द्वाविंशतिः बालिकाः , are all correct.

Step 7.

- The तकारान्त number groups, त्रिंशत्, चत्वारिंशत्, पञ्चाशत् are all declined like the feminine word सरित् ।

Step 8. (Doesn't it sound very much like Stop it?)

- The words शतम्, सहस्रम्, अयुतम्, लक्षम्, नियुतम्, प्रयुतम्, etc are all नपुंसकलिङ्ग words and are declined like वनम् in the एकवचन forms.
- कोटिः is declined like मतिः।

Step 9.

- New concept: Numbers are read and spoken about BACKWARDS.
- The numbers 101 onwards upto 200 are created by adding the word अधिक to the root number. For example:

101 = एकाधिकं शतम् , 102= द्वयाधिकं शतम्,
103 = त्रयाधिकं शतम्

OR

The word उत्तर is added

101 = एकोत्तरशतम् , 102= द्वयोत्तरशतम्, 103 = त्रयोत्तरशतम्

OR

Simply say

101 = एकशून्याएक 102= द्विशून्याएक 103 = त्रिशून्याएक

(naturally since the first four numbers have genders, I have left the एक without a visarga (:) or a म् or its feminine forms.....Gottitt??)

The third option makes reading of dates quite simple.

- The numbers 200 to 900 can be written by either first writing the root number and then the word शती OR by first writing शत and then adding द्वयम्, त्रयम् etc.

For example: 200 = द्विशती or शतद्वयम् । 300 = त्रिशती or शतत्रयम् ।
Naturally the first, द्विशती or त्रिशती is declined like नदी and the शतद्वयम् or शतत्रयम् , like वनम् ।

Numerals to the power of 10.

Here is a lovely verse that lists the numerals to the power of ten....

एकं दश शतं चैव सहस्रमयुतं तथा ।
लक्षं च नियुतं चैव कोटिरर्बुदमेव च ।
वृन्दं खर्वो निखर्वश्च शङ्खः पद्मश्च सागरः ।
अन्त्यं मध्यं परार्धं च दशवृद्ध्या यथाक्रमम् ॥

And here it is.

एकम्	1
दश	10
शतम्	100
सहस्रम्	1000
अयुतम्	10000
लक्षम्	100000
नियुतम्	1000000
कोटिः	10000000
अर्बुदम्	100000000
वृन्दम्	1000000000
खर्वः	10000000000
निखर्वः	100000000000
शङ्खुः	1000000000000
पद्मः	10000000000000
सागरः	100000000000000
अन्त्यम्	1000000000000000
मध्यम्	10000000000000000
परार्थम्	100000000000000000

Fractions

Again, just the list....

1/4 पादः 1/2 अर्धः 3/4 पादोनः 1¼ सपादः 1½ सार्धैकः

150 सार्धैकशतम् (Gottitt?)

The Ordinals. क्रमवाचक forms.

When you express numbers in the forms first, second, third , fourth, hundredth etc, you are using the ordinal forms of numbers.

In Sanskrit, they are called क्रमवाचक forms.

Since numerals are adjectives, each number has its own gender, number and vibhakti that you will have to use when using them with nouns.

Let me first give you the list from 1 to 10 in all its three genders. THEN, let's set about trying to figure out HOW to use them.

Ordinals.	पुंलिङ्ग	स्त्रीलिङ्ग	नपुंसकलिङ्ग
First	प्रथमः	प्रथमा	प्रथमम्
Second	द्वितीयः	द्वितीया	द्वितीयम्
Third	तृतीयः	तृतीया	तृतीयम्
Fourth	चतुर्थः	चतुर्थी	चतुर्थम्
Fifth	पञ्चमः	पञ्चमी	पञ्चमम्
Sixth	षष्ठः	षष्ठी	षष्ठम्
Seventh	सप्तमः	सप्तमी	सप्तमम्
Eighth	अष्टमः	अष्टमी	अष्टमम्
Ninth	नवमः	नवमी	नवमम्
Tenth	दशमः	दशमी	दशमम्

- Naturally the पुंलिङ्ग ordinals will be declined like राम , the स्त्रीलिङ्ग like नदी (except for the first three which go like माला) and the नपुंसकलिङ्ग like वनम् ।

Therefore we have a sentence like : I study in the ninth class . अहं नवम्यां कक्षायां पठामि ।

The eight book's name is " Nala Damayanti." अष्टमस्य पुस्तकस्य नाम "नल दमयन्ती ।"

I pray to the eighth avatara of Lord Vishnu. अहं विष्णोः अष्टमम् अवतारं नमामि ।

- All these forms are declined in singular, dual and plural. How else would we be able to say,
" The first fruits of the season are sweet?" ऋतोः प्रथमाणि फलानि मधुराणि ।
The first two books are mine. प्रथमे पुस्तके मम।
So on and so forth.
- The numbers 11- 18 are declined in the same manner..... the पुंलिङ्ग ordinals will be declined like राम , the स्त्रीलिङ्ग like नदी and the नपुंसकलिङ्ग like वनम् ।
- The numbers 19 onwards to this group you need to add तमः , तमी or तमम् to convert them into ordinals. For example:
Twentieth विंशतितमः , विंशतितमी , विंशतितमम्
Thirtieth त्रिंशत्तमः , त्रिंशत्तमी , त्रिंशत्तमम्
Hundredth शततमः , शततमी , शततमम् ।
- The numbers that are in the "twenty group"those with the word विंशति in them can also be written without the ति to convert them into Ordinals. For example: (and they become adjectives....)
Twentieth विंश
Twenty-first एकविंश
Twenty-second द्वाविंश

Collective nouns in the Neuter Gender Singular form are formed as follows -

Stick the root numeral as a suffix to the noun and convert it into a SINGULAR NEUTER FORM to convey a group. For example: पुस्तकत्रयम् is a group of three books. चषकशतम् is a group of 100 cups. You should be saying पुस्तकत्रयम् अत्र अस्ति and not पुस्तकत्रयम् अत्र सन्ति । Gottit??

Some more Number ideas.

Here is what we will learn in this lesson:

1. How to say once, twice, thrice etc.
2. How to say double, triple, four times
3. How to say " one way of doing something " "two ways ...", " three ways..." etc.
4. How to say "one kind of ..., " "two kinds of..." etc.
5. How to ask " who or which of many" as in : By which road did Mohan go? To which girl did you give the book?
6. How to read dates .
7. How to say how old you are
And
8. How to read page numbers.

Step by step as usual.

Group 1 and 3 are actually avyayas. They have already been dealt with in our special lesson on avyayas. But I personally prefer to have all details of a particular concept in one area.....never mind if a few ideas have to be dealt with more than once.

1. How to say once, twice, thrice etc.

Add the word वारम् to the root number and hey presto these avyayas convey the meaning once, twice, thrice etc.

एकवारम् , द्विवारम् , त्रिवारम् , चतुर्वारम् , बहुवारम् ।
अहं प्रतिदिनं द्विवारं स्नानं करोमि ।

2. How to say double, triple, four times. Adjective.

Add the word गुणः, गुणा, गुणम् ।

द्विगुण , त्रिगुण , चतुर्गुण ।

द्विगुणं भोजनं कृत्वा अधुना अहं केवलं निद्रां कर्तुम् इच्छामि ।

3. How to say " one way of doing something " "two ways ...", " three ways..." etc. Add the word धा ।

एकधा , द्विधा / द्वेधा / द्वैधम् , त्रिधा / त्रेधा / त्रैधम् , चतुर्धा , बहुधा (many ways of doing something) अनेकधा (different ways....) कतिधा (how many different ways...)

छात्रेषु एकता अस्ति....सर्वे एकधा कार्यं कुर्वन्ति ।

4. How to say "one kind of ...," "two kinds of..." etc. Add the word विध । This makes it into an adjective, following gender, number and vibhakti.

एकविधः , एकविधा, एकविधम्

द्विविधः, द्विविधा, द्विविधम्

त्रिविधः, त्रिविधा, त्रिविधम्

अष्टाविधानि पुष्पाणि तस्मिन् डलके सन्ति । (डलकम् basket.)

5. How to ask " who or which of many" as in : By which road did Mohan go? To which girl did you give the book? From which book did you get this picture?

Use the adjective: कतमस्- कतमा - कतमत्

कतमसा मार्गेण मोहनः गतवान् ?

कतमायै बालिकायै पुस्तकं भवती अयच्छत् ?

कतमतः पुस्तकात् त्वम् एतं चित्रम् अलभः ?

6. How to read dates. (Adjectives)

Numbers are read backwards in Sanskrit.

1971 would be read as एकसप्तनवएक OR एकसप्तत्युत्तरनवदशशतम् (एकसप्तति उत्तर नवदशशतम्) Much like reading 2050 as Two thousand and fifty OR Twenty fifty.... people read numbers in different ways.

The first option एकसप्तनवएक is a far easier method of reading out the dates. So let's make life easy , shall we?

In 1971 I went to Nagpur.... एकसप्तनवएकतमे or एकसप्तनवप्रथमवर्षे अहं नागपुरम् अगच्छम् ।

In 2003. त्रिशून्यशून्यद्वितीये or त्रिशून्यशून्यद्वितीयवर्षे

On the 1st of January 2003. त्रिशून्यशून्यद्वितीयवर्षे जॅनवरीमासस्य प्रथमदिनाङ्के

On the 19th of January जॅनवरीमासस्य नवदशदिनाङ्के ...

On the 16th of March.... मार्चमासस्य षोडशदिनाङ्के

7. How to say how old you are.

Use the words वर्षीयः and वर्षीया and make sentences like

अहं पञ्चाशत् वर्षीयः मनुष्यः ।

अहं त्रिंशत् वर्षीया महीला ।

8. How to read page numbers.

A page is पृष्ठम् ।

Look at page twenty nine.... एकोनत्रिंशत् पृष्ठं पश्यतु ।

The answer is on page twelve..... उत्तरं द्वादशे पृष्ठे अस्ति ।

The answer is on the fortieth page..... उत्तरं चत्वारिंशत्तमे पृष्ठे अस्ति ।
