(Numbers indicate chapter of introduction.)

(Sandhi note: all instances of final -*s* are given in their sandhied form, -*ḥ*.)

The following cases are always identical: GENABL SG except of *a*-stem nouns; NOMVOCACC DU, INSTRDATABL DU, GENLOC DU; NOMVOC PL, DATABL PL; NOMVOCACC NTR of all numbers, except *a*-stem SG.

		a (m.): 6		*a* (n.): 6	*ā* (f.): 9	*ī* (f.): 13	*ī* (root, f.): 13	*ū* (f.): 13	*ū* (root, f.): 13		
		'happy'				'river'	'thought'	'bride'	'earth'		
S	Nom	*sukhaḥ*	*sukham*		*sukhā*	*nadī*	*dhīḥ*	*vadhūḥ*	*bhūḥ*	Nom	
	Voc	*sukha*	*sukha*		*sukhe*	*nadi*	*dhīḥ*	*vadhu*	*bhūḥ*	Voc	
	Acc	*sukham*	*sukham*		*sukhām*	*nadīm*	*dhiyam*	*vadhūm*	*bhuvam*	Acc	
	Instr	*sukhena*			*sukhayā*	*nadyā*	*dhiyā*	*vadhvā*	*bhuvā*	Instr	
	Dat	*sukhāya*			*sukhāyai*	*nadyai*	*dhiye, dhiyai*	*vadhvai*	*bhuve, bhuvai*	Dat	
	Abl	*sukhāt*			*sukhāyāḥ*	*nadyāḥ*	*dhiyaḥ, dhiyāḥ*	*vadhvāḥ*	*bhuvaḥ, bhuvāḥ*	Abl	
	Gen	*sukhasya*			*sukhāyāḥ*	*nadyāḥ*	*dhiyaḥ, dhiyāḥ*	*vadhvāḥ*	*bhuvaḥ, bhuvāḥ*	Gen	
	Loc	*sukhe*			*sukhāyām*	*nadyām*	*dhiyi, dhiyām*	*vadhvām*	*bhuvi, bhuvām*	Loc	
D	NomVocAcc	*sukhau*	*sukhe*		*sukhe*	*nadyau*	*dhiyau*	*vadhvau*	*bhuvau*	NomVocAcc	
	InstrDatAbl	*sukhābhyām*			*sukhābhyām*	*nadībhyām*	*dhībhyām*	*vadhūbhyām*	*bhūbhyām*	InstrDatAbl	
	GenLoc	*sukhayoḥ*			*sukhayoḥ*	*nadyoḥ*	*dhiyoḥ*	*vadhvoḥ*	*bhuvoḥ*	GenLoc	
P	NomVoc	*sukhāḥ*	*sukhāni*		*sukhāḥ*	*nadyaḥ*	*dhiyaḥ*	*vadhvaḥ*	*bhuvaḥ*	NomVoc	
	Acc	*sukhān*	*sukhāni*		*sukhāḥ*	*nadīḥ*	*dhiyaḥ*	*vadhūḥ*	*bhuvaḥ*	Acc	
	Instr	*sukhaiḥ*			*sukhābhiḥ*	*nadībhiḥ*	*dhībhiḥ*	*vadhūbhiḥ*	*bhūbhiḥ*	Instr	
	DatAbl	*sukhebhyaḥ*			*sukhābhyaḥ*	*nadībhyaḥ*	*dhībhyaḥ*	*vadhūbhyaḥ*	*bhūbhyaḥ*	DatAbl	
	Gen	*sukhānām*			*sukhānām*	*nadīnām*	*dhiyām, dhīnām*	*vadhūnām*	*bhuvām, bhūnām*	Gen	
	Loc	*sukheṣu*			*sukhāsu*	*nadīṣu*	*dhīṣu*	*vadhūṣu*	*bhūṣu*	Loc	

a-**stem adjectives**: Feminines may be *ī*- rather than *ā*-stems; this is unpredictable, hence indicated in dictionaries etc.; e.g. *sundara*, -*ī* 'beautiful'.

		i (m.): 26	*i* (n.): 26	*i* (f.): 26	*u* (m.): 26	*u* (n.): 26	*u* (f.): 26	*ṛ* (m.): 29	*ṛ* (m.): 29	*ṛ* (f.): 29	
		'fire'	'water'	'mind'	'bow'	'honey'	'cow'	'leader'	'father'	'mother'	
	Nom	*agniḥ*	*vāri*	*matiḥ*	*dhanuḥ*	*madhu*	*dhenuḥ*	*netā*	*pitā*	*mātā*	Nom
	Voc	*agne*	*vāri*	*mate*	*dhano*	*madhu*	*dheno*	*netaḥ*	*pitaḥ*	*mātaḥ*	Voc
	Acc	*agnim*	*vāri*	*matim*	*dhanum*	*madhu*	*dhenum*	*netāram*	*pitaram*	*mātaram*	Acc
S	Instr	*agninā*	*vāriṇā*	*matyā*	*dhanunā*	*madhunā*	*dhenvā*	*netrā*	*pitrā*	*mātrā*	Instr
	Dat	*agnaye*	*vāriṇe*	*matyai, mataye*	*dhanave*	*madhune*	*dhenvai, dhenave*	*netre*	*pitre*	*mātre*	Dat
	AblGen	*agneḥ*	*vāriṇaḥ*	*matyāḥ, mateḥ*	*dhanoḥ*	*madhunaḥ*	*dhenvāḥ, dhenoḥ*	*netuḥ*	*pituḥ*	*mātuḥ*	AblGen
	Loc	*agnau*	*vāriṇi*	*matyām, matau*	*dhanau*	*madhuni*	*dhenvām, dhenau*	*netari*	*pitari*	*mātari*	Loc
	NVA	*agnī*	*vāriṇī*	*matī*	*dhanū*	*madhunī*	*dhenū*	*netārau*	*pitarau*	*mātarau*	NVA
D	InstrDatAbl	*agnibhyām*	*vāribhyām*	*matibhyām*	*dhanubhyām*	*madhubhyām*	*dhenubhyām*	*netṛbhyām*	*pitṛbhyām*	*mātṛbhyām*	InstrDatAbl
	GenLoc	*agnyoḥ*	*vāriṇoḥ*	*matyoḥ*	*dhanvoḥ*	*madhunoḥ*	*dhenvoḥ*	*netroḥ*	*pitroḥ*	*mātroḥ*	GenLoc
	NomVoc	*agnayaḥ*	*vārīṇi*	*matayaḥ*	*dhanavaḥ*	*madhūni*	*dhenavaḥ*	*netāraḥ*	*pitaraḥ*	*mātaraḥ*	NomVoc
	Acc	*agnīn*	*vārīṇi*	*matīḥ*	*dhanūn*	*madhūni*	*dhenūḥ*	*netṝn*	*pitṝn*	*mātṝḥ*	Acc
	Instr	*agnibhiḥ*	*vāribhiḥ*	*matibhiḥ*	*dhanubhiḥ*	*madhubhiḥ*	*dhenubhiḥ*	*netṛbhiḥ*	*pitṛbhiḥ*	*mātṛbhiḥ*	Instr
P	DatAbl	*agnibhyaḥ*	*vāribhyaḥ*	*matibhyaḥ*	*dhanubhyaḥ*	*madhubhyaḥ*	*dhenubhyaḥ*	*netṛbhyaḥ*	*pitṛbhyaḥ*	*mātṛbhyaḥ*	DatAbl
	Gen	*agnīnām*	*vārīṇām*	*matīnām*	*dhanūnām*	*madhūnām*	*dhenūnām*	*netṝṇām*	*pitṝṇām*	*mātṝṇām*	Gen
	Loc	*agniṣu*	*vāriṣu*	*matiṣu*	*dhanuṣu*	*madhuṣu*	*dhenuṣu*	*netṛṣu*	*pitṛṣu*	*mātṛṣu*	Loc

i- (**and *u*-)stem adjectives**: Neuter may use same forms as masculine where neuter forms add *-n* to stem. Neuter *nouns* use only the inflection given above.

**Feminines of *u*-stem adjectives may be formed by adding *-ī*: *bahu-* 'much, many' –› fem. *bahvī-*.

ṛ-**stems**: two groups: agent nouns (strong stem in *vṛddhi*, except VOC SG); terms for family relations (strong stem in guṇa). In both: LOC SG in *guṇa*.

Consonant stems: Masc. = Fem.; Ntr. different in NOMVOCACC

		t (m.): 15	*d* (f.): 15	*c* (f.): 15	*j* (m./f., n.): 15		*t* (n.): 15	*as* (n.) 24	*as* (m./f.) 24	*us* (n.) 24	*us* (m./f.) 24	
		'wind'	'fall'	'voice'	'enjoying…'		'world'	'mind'	'benevolent'	'eye'	'blind'	
	Nom	marut	āpat	vāk	-bhuk	-bhuk	jagat	manaḥ	sumanāḥ	cakṣuḥ	acakṣuḥ	Nom
	Voc	marut	āpat	vāk	-bhuk	-bhuk	jagat	manaḥ	sumanaḥ	cakṣuḥ	acakṣuḥ	Voc
	Acc	marutam	āpadam	vācam	-bhujam	-bhuk	jagat	manaḥ	sumanasam	cakṣuḥ	acakṣuṣam	Acc
S	Instr	marutā	āpadā	vācā	-bhujā		jagatā	manasā	sumanasā	cakṣuṣā	acakṣuṣā	Instr
	Dat	marute	āpade	vāce	-bhuje		jagate	manase	sumanase	cakṣuṣe	acakṣuṣe	Dat
	AblGen	marutaḥ	āpadaḥ	vācaḥ	-bhujaḥ		jagataḥ	manasaḥ	sumanasaḥ	cakṣuṣaḥ	acakṣuṣaḥ	AblGen
	Loc	maruti	āpadi	vāci	-bhuji		jagati	manasi	sumanasi	cakṣuṣi	acakṣuṣi	Loc
	NomVocAcc	marutau	āpadau	vācau	-bhujau	-bhujī	jagatī	manasī	sumanasau	cakṣuṣī	acakṣuṣau	NomVocAcc
D	InstrDatAbl	marudbhyām	āpadbhyām	vāgbhyām	-bhugbhyām		jagadbhyām	manobhyām	sumanobhyām	cakṣurbhyām	acakṣurbhyām	InstrDatAbl
	GenLoc	marutoḥ	āpadoḥ	vācoḥ	-bhujoḥ		jagatoḥ	manasoḥ	sumanasoḥ	cakṣuṣoḥ	acakṣuṣoḥ	GenLoc
	NomVocAcc	marutaḥ	āpadaḥ	vācaḥ	-bhujaḥ	-bhuñji	jaganti	manāṃsi	sumanasaḥ	cakṣūṃṣi	acakṣuṣaḥ	NomVocAcc
	Instr	marudbhiḥ	āpadbhiḥ	vāgbhiḥ	-bhugbhiḥ		jagadbhiḥ	manobhiḥ	sumanobhiḥ	cakṣurbhiḥ	acakṣurbhiḥ	Instr
P	DatAbl	marudbhyaḥ	āpadbhyaḥ	vāgbhyaḥ	-bhugbhyaḥ		jagadbhyaḥ	manobhyaḥ	sumanobhyaḥ	cakṣurbhyaḥ	acakṣurbhyaḥ	DatAbl
	Gen	marutām	āpadām	vācām	-bhujām		jagatām	manasām	sumanasām	cakṣuṣām	acakṣuṣām	Gen
	Loc	marutsu	āpatsu	vākṣu	-bhukṣu		jagatsu	manaḥsu	sumanaḥsu	cakṣuḥṣu	acakṣuḥṣu	Loc

is- and *us*-stems: parallel to *as*-stems, with exception of internal sandhi before consonants: wherever *as* –› *o*, *is*/*us* –› *ir*/*ur*, respectively; *ruki* applies (–› -*as*-, but -*iṣ*-/-*uṣ*-).

Note: Masculine/feminine *as*-/*is*-/*us*-stems: Identical endings, except for Nom Sg in -*āḥ*, but -*iḥ*/-*uḥ* with short vowel.

Adjective forms of all the above paradigms: Identical to masculine/feminine and neuter paradigms of nouns.

		an (m.): 29	*an* (m.): 29	*an* (n.): 29	*in* (m.): 29	*in* (n.): 29	
		'king'	'soul'	'name'	'going'		
S	Nom	rājā	ātmā	nāma	gāmī	gāmi	Nom
	Voc	rājan	ātman	nāma	gāmin	gāmi	Voc
	Acc	rājānam	ātmānam	nāma	gāminam	gāmi	Acc
	Instr	rājñā	ātmanā	nāmnā	gāminā		Instr
	Dat	rājñe	ātmane	nāmne	gāmine		Dat
	AblGen	rājñaḥ	ātmanaḥ	nāmnaḥ	gāminaḥ		AblGen
	Loc	rājñi/rājani	ātmani	nāmni/nāmani	gāmini		Loc
D	NomVocAcc	rājānau	ātmānau	nāmnī/nāmanī	gāminau	gāminī	NomVocAcc
	InstrDatAbl	rājabhyām	ātmabhyām	nāmabhyām	gāmibhyām		Instr Dat Abl
	GenLoc	rājñoḥ	ātmanoḥ	nāmnoḥ	gāminoḥ		GenLoc
P	NomVoc	rājānaḥ	ātmānaḥ	nāmāni	gāminaḥ	gāmīni	NomVoc
	Acc	rājñaḥ	ātmanaḥ	nāmāni	gāminaḥ	gāmīni	Acc
	Instr	rājabhiḥ	ātmabhiḥ	nāmabhiḥ	gāmibhiḥ		Instr
	DatAbl	rājabhyaḥ	ātmabhyaḥ	nāmabhyaḥ	gāmibhyaḥ		DatAbl
	Gen	rājñām	ātmanām	nāmnām	gāminām		Gen
	Loc	rājasu	ātmasu	nāmasu	gāmiṣu		Loc

an-stems: strong stem in *vṛddhi*, except VOC SG (*guṇa*). If more than one consonant precedes the *-an-*, the weak stem has *-an-*; if only one consonant precedes, the weak stem has *-n-*.

in-stems: 'having x' if added to nouns; 'regularly doing x' if added to verbal root (usually in *guṇa* or *vṛddhi*). Feminines add *-ī*: *gaminī-* 'going'.

in-/*an*-stem adjectives: Identical to the corresponding noun forms in each gender.

		ant: 25		vant, mant: 25		vas: 35		yas: 35			cons.-stem endings	
		'being'		'virtuous'		'having done'		'better'			(Cf. Chapter 15)	
		(m.)	(n.)	(m.)	(n.)	(m.)	(n.)	(m.)	(n.)		(m./f.)	(n.)
	Nom	*san*	*sat*	*guṇavān*	*guṇavat*	*cakṛvān*	*cakṛvat*	*śreyān*	*śreyaḥ*	Nom	(cf. Ch. 15)	-
	Voc	*san*	*sat*	*guṇavan*	*guṇavat*	*cakṛvan*	*cakṛvat*	*śreyan*	*śreyaḥ*	Voc	-	-
	Acc	*santam*	*sat*	*guṇavantam*	*guṇavat*	*cakṛvāṃsam*	*cakṛvat*	*śreyaṃsam*	*śreyaḥ*	Acc	-am	-
S	Instr	*satā*		*guṇavatā*		*cakṛuṣā*		*śreyasā*		Instr	-ā	
	Dat	*sate*		*guṇavate*		*cakṛuṣe*		*śreyase*		Dat	-e	
	AblGen	*sataḥ*		*guṇavataḥ*		*cakṛuṣaḥ*		*śreyasaḥ*		AblGen	-aḥ	
	Loc	*sati*		*guṇavati*		*cakṛuṣi*		*śreyasi*		Loc	-i	
	NomVocAcc	*santau*	*satī*	*guṇavantau*	*guṇavatī*	*cakṛvāṃsau*	*cakṛuṣī*	*śreyāṃsau*	*śreyasī*	NomVocAcc	-au	-ī
D	InstrDatAbl	*sadbhyām*		*guṇavadbhyām*		*cakṛvadbhyām*		*śreyobhyām*		InstrDatAbl	-ābhyām	
	GenLoc	*satoḥ*		*guṇavatoḥ*		*cakṛuṣoḥ*		*śreyasoḥ*		GenLoc	-oḥ	
	NomVoc	*santaḥ*	*santi*	*guṇavantaḥ*	*guṇavanti*	*cakṛvāṃsaḥ*	*cakṛvāṃsi*	*śreyāṃsaḥ*	*śreyāṃsi*	NomVoc	-aḥ	(Cf. Ch. 15)
	Acc	*sataḥ*	*santi*	*guṇavataḥ*	*guṇavanti*	*cakṛuṣaḥ*	*cakṛvāṃsi*	*śreyasaḥ*	*śreyāṃsi*	Acc	-aḥ	
	Instr	*sadbhiḥ*		*guṇavadbhiḥ*		*cakṛvadbhiḥ*		*śreyobhiḥ*		Instr	-bhiḥ	
P	DatAbl	*sadbhyaḥ*		*guṇavadbhyaḥ*		*cakṛvadbhyaḥ*		*śreyobhyaḥ*		DatAbl	-bhyaḥ	
	Gen	*satām*		*guṇavatām*		*cakṛuṣām*		*śreyasām*		Gen	-ām	
	Loc	*satsu*		*guṇavatsu*		*cakṛvatsu*		*śreyaḥsu*		Loc	-su	

-vas-: strong *-vāṃs-*; note weak suffix *-vad-* (before consonants) vs. *-uṣ-* (before vowels).

Feminines: Of the above stems, feminines are formed by adding *-ī* to the zero grade stem. (Exception: PRES ACT PTC (= *ant*-stems) of thematic verbs: *-ī* added to stem in *guṇa*.)

The resulting forms are declined like regular *ī*-stems: **bharantī-/satī- – guṇavatī- – cakṛuṣī- – śreyasī-**

ADJECTIVES: COMPARATIVES AND SUPERLATIVES

There are two ways of forming comparatives and superlatives of adjectives:

1) Add *-tara-* or *-tama-* to stem: e.g. *śīghra-* 'fast' – *śīghratara-* 'faster' – *śīghratama-* 'fastest'

2) Rarer: add *-(ī)yas-* or *-iṣṭha-* to often unpredictable form of adjective stem: e.g. *guru-* 'heavy' – *gariyas-* 'heavier – *gariṣṭha-* 'heaviest'; comparative has *-(ī)yāṃs-* in strong cases, *-(ī)yas-* in weak cases, *-(ī)yan* in VOC SG MASC; feminines are formed by adding *-ī* to the weak stem.

List of Paradigms: 2) Pronouns

		mat-: 32 'I'	*tvat-*: 32 'you'	*tad-*: 20 'he' (m)	'it' (n)	'she' (f)	*idam-*: 20 'this' (m)	(n)	(f)	*adas-*: 39 'that' (m)	(n)	(f)	
		all genders	all genders										
S	Nom	aham	tvam	saḥ	tat	sā	ayam	idam	iyam	asau	adaḥ	asau	Nom
	Acc	mām, mā	tvām, tvā	tam	tat	tām	imam	idam	imām	amum	adaḥ	amūm	Acc
	Instr	mayā	tvayā	tena		tayā	anena		anayā	amunā		amuyā	Instr
	Dat	mahyam, me	tubhyam, te	tasmai		tasyai	asmai		asyai	amuṣmai		amuṣyai	Dat
	Abl	mat	tvat	tasmāt		tasyāḥ	asmāt		asyāḥ	amuṣmāt		amuṣyāḥ	Abl
	Gen	mama, me	tava, te	tasya		tasyāḥ	asya		asyāḥ	amuṣya		amuṣyāḥ	Gen
	Loc	mayi	tvayi	tasmin		tasyām	asmin		asyām	amuṣmin		amuṣyām	Loc
D	NomAcc	āvām	yuvām	tau	te	te	imau	ime	ime	amū			NomAcc
	InstrDatAbl	āvābhyām	yuvābhyām	tābhyām		tābhyām	ābhyām		ābhyām	amūbhyām			InstrDatAbl
	GenLoc	āvayoḥ	yuvayoḥ	tayoḥ		tayoḥ	anayoḥ		anayoḥ	amuyoḥ			GenLoc
P	Nom	vayam	yūyam	te	tāni	tāḥ	ime	imāni	imāḥ	amī	amūni	amūḥ	Nom
	Acc	asmān, naḥ	yuṣmān, vaḥ	tān	tāni	tāḥ	imān	imāni	imāḥ	amūn	amūni	amūḥ	Acc
	Instr	asmābhiḥ	yuṣmābhiḥ	taiḥ		tābhiḥ	ebhiḥ		ābhiḥ	amībhiḥ		amūbhiḥ	Instr
	Dat	asmabhyam, naḥ	yuṣmabhyam, vaḥ	tebhyaḥ		tābhyaḥ	ebhyaḥ		ābhyaḥ	amībhyaḥ		amūbhyaḥ	Dat
	Abl	asmat	yuṣmat	tebhyaḥ		tābhyaḥ	ebhyaḥ		ābhyaḥ	amībhyaḥ		amūbhyaḥ	Abl
	Gen	asmākam, naḥ	yuṣmākam, vaḥ	teṣām		tāsām	eṣām		āsām	amīṣām		amūṣām	Gen
	Loc	asmāsu	yuṣmāsu	teṣu		tāsu	eṣu		āsu	amīṣu		amūṣu	Loc

mat-, tvat-: Forms after comma are enclitic; *mat-*: enclitic form of AccDatGen Du: *nau*; *tvat-*: enclitic of AccDatGen Du: *vām*.

		Primary		Secondary		Imperative	
		Active	Middle	Active	Middle	Active	Middle
Sg	1st	-mi	-e	-(a)m	-i/-(y)a	-āṇi	-ai
	2nd	-si	-se	-ḥ	-thāḥ	-ø/-(d)hi	-sva
	3rd	-ti	-te	-t	-ta	-tu	-tām
Du	1st	-vaḥ	-vahe	-va	-vahi	-āva	-āvahai
	2nd	-thaḥ	-(e/ā)the	-tam	-(e/ā)thām	-tam	-(e/ā)thām
	3rd	-taḥ	-(e/ā)te	-tām	-(e/ā)tām	-tām	-(e/ā)tām
Pl	1st	-maḥ	-mahe	-ma	-mahi	-āma	-āmahai
	2nd	-tha	-dhve	-ta	-dhvam	-ta	-dhvam
	3rd	-(a)nti	-(a)nte	-an/-uḥ	-(a)nta/-ran	-(a)ntu	-(a)ntām

The Endings of the Present System

Note: The forms of the 1st DU and the 1st PL are always identical except for the DU ending having a -v- where the PL ending has an -m-.

PRESENT AND IMPERFECT

The 10 Classes of Verbal Stems:

a) Thematic (4, 7):   I: Root in *guṇa*, add -a-
  Examples: √*nī* 'to lead': *nayati*, √*bhṛ* 'to carry': *bharati*.
IV: Root in zero grade, add -ya-
  Example: √*hṛṣ* 'to be excited': *hṛṣyati*.
VI: Root in zero grade, add -a-
  Example: √*viś* 'to enter': *viśati*.
X: Root in various grades (usually a heavy syllable), add -aya-
  Example: √*cur* 'to steal': *corayati*.

Example Thematic Paradigm: √*bhṛ* (I) 'to carry'

		Present		Imperfect		Potential		Imperative	
		Active	Middle	Active	Middle	Active	Middle	Active	Middle
Sg	1st	*bharāmi*	*bhare*	*abharam*	*abhare*	*bhareyam*	*bhareya*	*bharāṇi*	*bharai*
	2nd	*bharasi*	*bharase*	*abharaḥ*	*abharathāḥ*	*bhareḥ*	*bharethāḥ*	*bhara*	*bharasva*
	3rd	*bharati*	*bharate*	*abharat*	*abharata*	*bharet*	*bhareta*	*bharatu*	*bharatām*
Du	1st	*bharāvaḥ*	*bharāvahe*	*abharāva*	*abharāvahi*	*bhareva*	*bharevahi*	*bharāva*	*bharāvahai*
	2nd	*bharathaḥ*	*bharethe*	*abharatam*	*abharethām*	*bharetam*	*bhareyāthām*	*bharatam*	*bharethām*
	3rd	*bharataḥ*	*bharete*	*abharatām*	*abharetām*	*bharetām*	*bhareyātām*	*bharatām*	*bharetām*
Pl	1st	*bharāmaḥ*	*bharāmahe*	*abharāma*	*abharāmahi*	*bharema*	*bharemahi*	*bharāma*	*bharāmahai*
	2nd	*bharatha*	*bharadhve*	*abharata*	*abharadhvam*	*bhareta*	*bharedhvam*	*bharata*	*bharadhvam*
	3rd	*bharanti*	*bharante*	*abharan*	*abharanta*	*bhareyuḥ*	*bhareran*	*bharantu*	*bharantām*

b) Athematic (18, 19):

Strong stem (usually guṇa) in Pres and Impf Act Sg (+ Impv of all 1st persons Act and Mid and 3rd Sg Act); **weak stem** (zero grade) everywhere else.

> In **Class II** verbs, endings are added directly to the root, which stands in guṇa (strong) or zero grade (weak). **No** additional **affixes** are used.
> > Example: √*i* 'to go': 1st Sg *emi* 'I go', 1st Pl *imaḥ* 'we go'.

> In **Class III** verbs, the root is **reduplicated** (see below on reduplication). No other affixes are added. The root stands in guṇa (strong) or zero grade (weak).
> > Example: √*hu* 'sacrifice': 1st Sg *juhomi*, 1st Pl *juhumaḥ*.

> **Class V** roots add the suffix -*no*- (strong)/-*nu*- (weak).
> > Example: √*āp* 'obtain, get': 1st Sg *āpnomi*, 1st Pl *āpnumaḥ*.

> **Class VII** roots add -*na*-/-*n*- as an infix **into** the verbal root, directly before the root-final consonant.
> > Example: √*rudh* 'to hinder': 1st Sg *ruṇadhmi*, 1st Pl *rundhmaḥ*.

> **Class VIII** roots add strong -*o*-/weak -*u*-.
> > Example: √*tan* 'to stretch': 1st Sg *tanomi*, 1st Pl *tanumaḥ*.
> > > (As most of the few existing Class VIII roots end in -*n*, they effectively look identical to Class V verbs.)

> **Class IX** roots add the suffix -*nā*- in the strong forms, -*nī*- in weak forms whose endings begin with a consonant, and -*n*- in weak forms whose endings begin with a vowel (i.e. in the 3rd Pl).
> > Example: √*krī* 'to buy': 1st Sg *krīṇāmi*, 1st Pl *krīṇīmaḥ*, 3rd Pl *krīṇanti*.

Nothing's added in Class Two.
Reduplicate Three: *juho-/juhu-*.
In Class Five add a *no* and a *nu*.
In Class Eight it's just *o* and a *u*.
na and *n* are added <u>into</u>
Class Seven. Class Nine, last of the crew,
     adds *nā/nī/n*, and that should do.

		II √*i*	III √*hu*	V √*āp*	√*vṛ*	VII √*rudh*	VIII √*tan*	IX √*kṛī*
Sg	1st	*emi*	*juhomi*	*āpnomi*	*vṛṇomi*	*ruṇadhmi*	*tanomi*	*krīṇāmi*
	2nd	*eṣi*	*juhoṣi*	*āpnoṣi*	*vṛṇoṣi*	*ruṇatsi*	*tanoṣi*	*krīṇāsi*
	3rd	*eti*	*juhoti*	*āpnoti*	*vṛṇoti*	*ruṇaddhi*	*tanoti*	*krīṇāti*
Du	1st	*ivaḥ*	*juhuvaḥ*	*āpnuvaḥ*	*vṛṇ(u)vaḥ*	*rundhvaḥ*	*tan(u)vaḥ*	*krīṇīvaḥ*
	2nd	*ithaḥ*	*juhuthaḥ*	*āpnuthaḥ*	*vṛṇuthaḥ*	*runddhaḥ*	*tanuthaḥ*	*krīṇīthaḥ*
	3rd	*itaḥ*	*juhutaḥ*	*āpnutaḥ*	*vṛṇutaḥ*	*runddhaḥ*	*tanutaḥ*	*krīṇītaḥ*
Pl	1st	*imaḥ*	*juhumaḥ*	*āpnumaḥ*	*vṛṇ(u)maḥ*	*rundhmaḥ*	*tan(u)maḥ*	*krīṇīmaḥ*
	2nd	*itha*	*juhutha*	*āpnutha*	*vṛṇutha*	*runddha*	*tanutha*	*krīṇītha*
	3rd	*yanti*	*juh**vati***	*āpnuvanti*	*vṛṇvanti*	*rundhanti*	*tanvanti*	*krīṇanti*

Active Potential: weak stem + *yā* + active secondary endings							
Sg 1st	*īyām*	*juhuyām*	*āpnuyām*	*vṛṇuyām*	*rundhyām*	*tanuyām*	*krīṇīyām*

Middle Potential: weak stem + *ī* + middle secondary endings							
Sg 1st	*dviṣīya*	*juhvīya*	*apnuvīya*	*vṛṇvīya*	*rundhīya*	*tanvīya*	*krīṇīya*

Example Athematic Paradigm: √*hu* (III) 'to pour, to sacrifice'

		Present		Imperfect		Potential		Imperative	
		Active	Middle	Active	Middle	Active	Middle	Active	Middle
Sg	1st	*juhomi*	*juhve*	*ajuhavam*	*ajuhvi*	*juhuyām*	*juhvīya*	*juhavāni*	*juhavai*
	2nd	*juhoṣi*	*juhuṣe*	*ajuhoḥ*	*ajuhuthāḥ*	*juhuyāḥ*	*juhvīthāḥ*	*juhudhi*	*juhuṣva*
	3rd	*juhoti*	*juhute*	*ajuhot*	*ajuhuta*	*juhuyāt*	*juhvīta*	*juhotu*	*juhutām*
Du	1st	*juhuvaḥ*	*juhuvahe*	*ajuhuva*	*ajuhuvahi*	*juhuyāva*	*juhvīvahi*	*juhavāva*	*juhavāvahai*
	2nd	*juhuthaḥ*	*juhvāthe*	*ajuhutam*	*ajuhvāthām*	*juhuyātam*	*juhvīyāthām*	*juhutam*	*juhvāthām*
	3rd	*juhutaḥ*	*juhvāte*	*ajuhutām*	*ajuhvātām*	*juhuyātām*	*juhvīyātām*	*juhutām*	*juhvātām*
Pl	1st	*juhumaḥ*	*juhumahe*	*ajuhuma*	*ajuhumahi*	*juhuyāma*	*juhvīmahi*	*juhavāma*	*juhavāmahai*
	2nd	*juhutha*	*juhudhve*	*ajuhuta*	*ajuhudhvam*	*juhuyāta*	*juhvīdhvam*	*juhuta*	*juhudhvam*
	3rd	*juhvati*	*juhvate*	*ajuhuvuḥ*	*ajuhvata*	*juhuyuḥ*	*juhvīran*	*juhvatu*	*juhvatām*

Example Athematic Paradigm: √*śak* (V) 'to be strong, to be able to'

		Present		Imperfect		Potential		Imperative	
		Active	Middle	Active	Middle	Active	Middle	Active	Middle
Sg	1st	*śaknomi*	*śaknuve*	*aśaknavam*	*aśaknuvi*	*śaknuyām*	*śaknuvīya*	*śaknavāni*	*śaknavai*
	2nd	*śaknoṣi*	*śaknuṣe*	*aśaknoḥ*	*aśaknuthāḥ*	*śaknuyāḥ*	*śaknuvīthāḥ*	*śaknu*	*śaknuṣva*
	3rd	*śaknoti*	*śaknute*	*aśaknot*	*aśaknuta*	*śaknuyāt*	*śaknuvīta*	*śaknotu*	*śaknutām*
Du	1st	*śaknuvaḥ*	*śaknuvahe*	*aśaknuva*	*aśaknuvahi*	*śaknuyāva*	*śaknuvīvahi*	*śaknavāva*	*śaknavāvahai*
	2nd	*śaknuthaḥ*	*śaknuvāthe*	*aśaknutam*	*aśaknuvāthām*	*śaknuyātam*	*śaknuvīyāthām*	*śaknutam*	*śaknuvāthām*
	3rd	*śaknutaḥ*	*śaknuvāte*	*aśaknutām*	*aśaknuvātām*	*śaknuyātām*	*śaknuvīyātām*	*śaknutām*	*śaknuvātām*
Pl	1st	*śaknumaḥ*	*śaknumahe*	*aśaknuma*	*aśaknumahi*	*śaknuyāma*	*śaknuvīmahi*	*śaknavāma*	*śaknavāmahai*
	2nd	*śaknutha*	*śaknudhve*	*aśaknuta*	*aśaknudhvam*	*śaknuyāta*	*śaknuvīdhvam*	*śaknuta*	*śaknudhvam*
	3rd	*śaknuvanti*	*śaknuvate*	*aśaknuvan*	*aśaknuvata*	*śaknuyuḥ*	*śaknuvīran*	*śaknuvantu*	*śaknuvatām*

Notes:

All Athematic Classes: 3rd Pl Pres Act *-anti*, 1st Sg Impf Act *-am*: the presence of this *-a-* prevents certain sandhi and keeps these endings recognisable. – 2nd + 3rd Du in Impf and Impv middle: *-āthām/-ātām* with long *-ā-* (thematic: *-ethām/-etām*). – Relevant **internal sandhi**: Chapter 18. – Cf. Chapter 19 for a list of noteworthy and exceptional paradigms.

Class III: 3rd Pl Pres Act: *-ati* rather than *-anti*. – 3rd Pl Impf Act: *-uḥ* rather than *-an*.

Class V: In 1st Du and Pl, both *-nvaḥ/-nuvaḥ* and *-nmaḥ/-numaḥ* are possible unless a stop precedes (and thus only *-nuvaḥ/-numaḥ* are pronounceable). – Class V roots ending in a consonant have 2nd Sg Impv in *-hi* (as other athematic verbs); Class V roots ending in a vowel use the weak stem for this form (as thematic verbs do; cf. e.g. √*vṛ* –› *vṛṇu* 'cover!').

The perfect has its own set of endings, which are added to the strong reduplicated stem in the active singular, and the weak reduplicated stem elsewhere.

	Active			Middle		
	Sg	Du	Pl	Sg	Du	Pl
1st	-a	-(i)va	-(i)ma	-e	-(i)vahe	-(i)mahe
2nd	-(i)tha	-athuḥ	-a	-(i)ṣe	-āthe	-(i)dhve
3rd	-a	-atuḥ	-uḥ	-e	-āte	-ire
Exception: verbal roots in -ā have -au as 1st + 3rd Sg Act ending.						

(i)'s in brackets are present when a consonant precedes, absent if a vowel precedes (sometimes absent in 2nd Sg Act even if a consonant precedes).

Perfect Reduplication: Vowel reduplicated by its short counterpart; consonant reduplicated identically, except: aspirated –› unaspirated; velar –› palatal (incl. *h* –› *j*); clusters: only first consonant; except if *s* + stop –› only stop. (See Chapter 27 for details.)

Below: Perfect paradigms exemplifying various formal features of the perfect.

		√viś 'enter' (1)		√iṣ 'want' (2)	√vac 'speak' (3)	√gam 'go' (4)	√tap 'be hot' (5)	√dhā 'put' (6)	√bhū 'be' (7)
Sg	**1st**	viveśa	viviśe	iyeṣa	uvaca/uvāca	jagama/jagāma	tatapa, tatāpa	dadhau	babhūva
	2nd	viveśitha	viviśiṣe	iyeṣitha	uvacitha	jagantha/jagamitha	tataptha, tepitha	dadhātha, dadhitha	babhūvitha
	3rd	viveśa	viviśe	iyeṣa	uvāca	jagāma	tatāpa	dadhau	babhūva
Du	**1st**	viviśiva	viviśivahe	īṣiva	ūciva	jagmiva	tepiva	dadhiva	babhūviva
	2nd	viviśathuḥ	viviśāthe	īṣathuḥ	ūcathuḥ	jagmathuḥ	tepathuḥ	dadhathuḥ	babhūvathuḥ
	3rd	viviśatuḥ	viviśāte	īṣatuḥ	ūcatuḥ	jagmatuḥ	tepatuḥ	dadhatuḥ	babhūvatuḥ
Pl	**1st**	viviśima	viviśimahe	īṣima	ūcima	jagmima	tepima	dadhima	babhūvima
	2nd	viviśa	viviśidhve	īṣa	ūca	jagma	tepa	dadha	babhūva
	3rd	viviśuḥ	viviśire	īṣuḥ	ūcuḥ	jagmuḥ	tepuḥ	dadhuḥ	babhūvuḥ

(1)   Regular paradigm in active and middle.

(2)   Vowel-initial root: reduplication of initial vowel only, insertion of glide in strong stem, long initial vowel in weak stem.

(3)   Same as in 2, but of a root cited in *guṇa*.

(4)   Verb with -*a*- + only one consonant in *guṇa*: vṛddhi of root used in 3rd Sg and potentially 1st Sg.

(5)   Root with -*a*- and identically reduplicating consonant: alternative weak stem (no reduplication, *a* > *e*).

(6)   Alternative endings due to stem-final -*ā*.

(7)   Frequently used paradigm with irregular reduplicative vowel and without stem gradation (stem = *babhūv-* throughout).

–› See Chapter 34 on the periphrastic perfect of derived verbs and verbal roots with a long initial vowel.

OTHER PARTS OF THE VERB:

Passive Voice (21): The present tense forms its passive voice by combining **the weak root + -ya- + middle endings.** Root-final vowels change: *i, u > ī, ū; ā > ī, ṛ > ri* (after more than one consonant: *ar*); *ṝ > īr*, after labials *ūr*.
Examples: √*yaj* 'to sacrifice' –› *ijye, ijyase, ijyate* etc.; √*dā* 'to give' –› *dīyate*; √*tṝ* 'to cross' –› *tīryate*
In all other tenses, the passive is formally identical to the middle. Context helps us tell the two apart.

Future Tense (21): *-sya-* **or** *-iṣya-* **are added to the root in guṇa.** Internal sandhi before *s*: devoicing, deaspiration; palatals > velars; *s > ḥ; ś, ṣ > k*.
Examples: √*gam* 'to go': *gaṃsyati* or *gamiṣyati*, √*dṛś* 'to see': *drakṣyati*

Periphrastic Future (29): An alternative future is formed by **adding the forms of √*as* 'to be' to an agent noun in the Nom Sg**. The 3rd-person forms use an agent noun in the respective number without a form of √*as*.
Example: √*nī* to lead': *netāsmi* 'I will lead', *netāsi, netā – netāsvaḥ, netāsthaḥ, netārau – netāsmaḥ, netāstha, netārāḥ*.

Periphrastic Perfect (33): Roots not clearly recognisable in the regular perfect (e.g. **causatives**, and by extension also Class X roots), and roots in which a regular reduplication is not recognisable as such (i.e. **roots with initial long vowels**) form an alternative perfect by taking the present stem, adding *-ām* and a perfect form of 'to be' (*āsa, babhūva*) or the perfect active or middle of √*kṛ* (*cakāra, cakre*).
Examples: √*bhṛ* 'to carry'–› causative *bhārayati* 'he causes to carry' –› periphrastic perfect *bharayām āsa* 'he caused to carry'
√*ās* 'to sit' –› *ās-ām āsa* 'he sat', *āsāṃ cakrire* 'they sat'.

Aorist (38): See Chapter for forms.

SECONDARY FORMATIONS

Causative (7): Adding *-aya-* to a verbal root outside of Class X strengthened to at least guṇa creates the meaning of 'to cause someone to do something.'
Examples: √*nī* 'to lead' –› (I) *nayati* 'leads' –› *nāyayati* 'causes to lead'; √*dṛś* 'to see' –› *darśayati* 'causes to see, shows'

Desiderative (34): Adding *-sa-* or *-iṣa-* to a reduplicated root creates the meaning of 'to want to do x'. Before *-sa-*, the root usually stands in zero grade; before *-iṣa-* usually in guṇa. Consonants are reduplicated as usual (see below), vowels as follows: *u/ū* reduplicates as *u*, everything else as *i*.
Examples: √*yudh* 'to fight' –› *yuyutsate* 'wants to fight'; √*pā* 'to drink' –› *pipāsati* 'wants to drink'; NB √*āp* 'to get' –› *īpsati* 'wants to get' or simply 'wants'.

NOMINAL FORMATIONS FROM VERBS

(For sandhi before *t*, see relevant section of Internal Sandhi above.)

Participles: **Present Active (25):** -(*a*)*nt-/-(a)t*- added to present stem (athematic: weak stem). Class III: only -*at*-.

         Examples: √*nī* –› *nayant*- 'leading'; √*dhā* –› *dadhat*- 'giving'.

     Present Middle (22): Thematic -*māna*-, athematic -*āna*- added to present stem (athematic: weak stem).

         Examples: √*yudh* –› *yudhyamāna*- 'fighting'; √*yuj* –› *yuñjāna*- 'linking'; but NB √*ās* –› *āsīna*- 'sitting'.

     Future participles (25): Formed from future stem with same suffixes as present participles.

         Examples: Act √*gam* –› *gamiṣyant*- 'about to go'; Mid/Pass √*yudh* –› *yotsyamāna*- 'about to fight/be fought'.

     Perfect Active (35): -*vāṃs-/-vad*- (weak before cons.)/-*uṣ*- (weak before vowel) added to weak perfect stem.

         Examples: √*tud* –›*tutudvat*- 'having struck'; note √*vid*- –› *vidvat*- 'knowing' (without reduplication).

     Perfect Middle: -*āna*- added to the weak perfect stem.

         Examples: √*kṛ*–› *cakrāṇa*- 'having done', √*vip* –› *vepāna*- 'shaking, trembling'.

     ta/na-**Participle (8, 34):** -*ta*- added to zero-grade root. Meaning: usually past; passive whenever possible, otherwise active.

         Examples: √*han* –› *hata*- 'having been killed'; √*gam* –› *gata*- 'having gone'.

         A small number of roots (usually ending in -*d* or a vowel) use -*na*- rather than -*ta*- (34).

         Examples: √*sad* –› *sanna*- 'seated'; √*tṝ* –› *tīrṇa*- 'having crossed'.

     tavant-**Participle (25):** adds -*vant*- to *ta*-participle, declined like *vant-/mant*-stems. Past active meaning.

         Example: √*likh* –› *likhitavant*- 'having written'.

Feminines in -*ī* formed of the following: Pres Act Ptc (strong stem of thematic, weak stem of athematic verbs (e.g. *nayantī-/dadhatī*-);

     weak (prevocalic) stem of Perf Act Ptc (e.g. *viduṣī*-); weak stem of *tavant*-participle (e.g. *likhitavatī*-).

Absolutive (8):   Adding -*tvā* (compound verbs: -*tya* after short vowels, -*ya* elsewhere) to the root in zero grade results in the meaning of 'having done x'. Indeclinable.

     Examples: *kṛtvā* 'having done'; *gatvā* 'having gone', *apagamya* or *apagatya* 'having gone away'; *uktvā* 'having said' (√*vac*).

Gerundive (34):   Root in various grades plus -(*t*)*ya*-, root in guṇa plus -*tavya*- or -*anīya*-, plus case ending. Meaning: passive necessity.

     Examples: √*kṛ* –› *kartavya*- 'having to be done'; √*śru* –› *śrutya*- 'having to be heard'.

Infinitive (8):   Adding -*tum* to the root in guṇa results in the meaning 'to do x'. Infinitives are usually used after verbs such as 'to want, to wish (to do something)' etc.

     Examples: √*bhṛ* –› *bhartum* 'to carry'; √*nī* –› *netum* 'to lead'; √*dṛś* –› *draṣṭum* 'to see'.

ati-	'across, over, beyond'	*abhi-*	'to, against'	*nis-*	'out' (sandhi forms: *niḥ-, nir-, niṣ-*)
adhi-	'above, over, on, on to'	*ava-*	'down, off'	*pari-*	'around'
anu-	'after, along, toward'	*ā-*	'to, hither'	*pra-*	'forward'
antar-	'between, among, within'	*ud-*	'up, out'	*prati-*	'towards; against; back'
apa-	'away, off'	*upa-*	'to, toward'	*vi-*	'apart, away, out'
api-	'onto, close to'	*ni-*	'down, into'	*sam-*	'along, with, together'

REDUPLICATION

Reduplication is found in Class III verbs (Chapter 18), the perfect tense (Chapter 27), desiderative verbs (Chapter 34), and in a small number of present tense stems (e.g. √*sthā*, √*pā*). Reduplicating a root means taking the first consonant and first vowel and adding them to the front of that root: of √*takṣ* 'to construct, fashion', for example, the reduplicated form is *ta-takṣ-*. Both consonants and vowels do not always reduplicate identically. The rules for consonant reduplication are the same wherever reduplication occurs (a). The rules of vowel reduplication vary (b).

a) **Consonants**

Aspirated consonants are reduplicated without the aspiration: √*dhā* 'to put' –› *da-dhā-*.

Velar consonants are reduplicated as palatals: √*kṛ* 'do' –› *ca-kṛ-*.

h, frequently representing original **gh*, is reduplicated as *j*: √*hu* 'sacrifice, pour' –› *ju-hu-*.

In **consonant clusters**, only the first consonant is repeated: √*kram* 'to stride' –› *ca-kram-* (with palatal instead of velar). Exception: If the cluster consists of *s* plus stop, it is only the stop that is repeated. (√*sthā* 'to stand'–› *ti-ṣṭha-* (with retroflex *-ṣṭ-* according to *ruki*)).

b) **Vowels:**

Class III: Short vowels are reduplicated identically; long vowels with their short counterpart: √*dā* 'to give' –› reduplicated *da-dā-*.

Perfect: Roots that contain *i/ī* or *u/ū* have *-i-* or *-u-* as their reduplicative vowel, respectively: √*śru* –› *śu-śru-*, √*kṣip* –›*ci-kṣip-*. In all other cases, the reduplicative vowel is *-a-*: √*kṛ* –› *ca-kṛ-*; √*dā* –› *da-dā-*. Irregular: √*bhū* –› *ba-bhū-*

Desideratives: *u/ū* reduplicates as *u*, everything else as *i*: √*yudh* 'to fight': *yu-yut-sa-te*; √*pā* 'to drink' –› *pi-pā-sa-ti*.