

बौधायन शुल्बसूत्र ॥१.१२॥

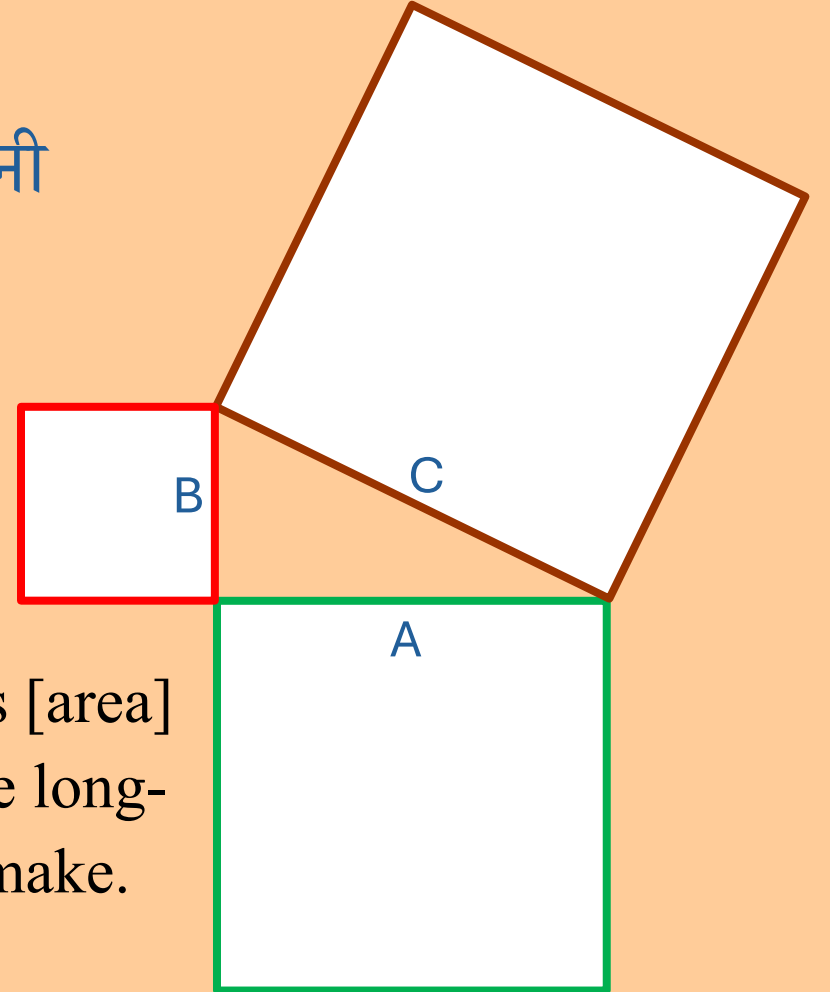
baudhāyana śulbasūtra ||1.12||

~ 800 BC

दीर्घचतुरश्रस्याक्षण्या रज्जुः पार्श्वमानी तिर्यङ्मानी
च यत्पृथग्भूते कुरुतस्तदुभयं करोति ।

$$C^2 = A^2 + B^2$$

A rope along the diagonal of a rectangle makes [area]
which separately them both, one measuring the long-
side and one measuring the transverse-side, make.



दीर्घ-चतुरश्रस्य अक्षण्या रज्जुः पार्श्व-मानी तिर्यक्-मानी
च यत् पृथक् भूते कुरुतः तद्-उभयम् करोति ।

dīrgha-caturaśrasya akṣṇayā rajjuḥ pārsva-mānī tiryak-mānī
ca yat prthak bhūte kurutaḥ tad-ubhayam karoti |

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m Gen Sg	Adverb	f Nom Sg	m Nom Sg
dīrgha-caturaśrasya akṣṇayā rajjuḥ pārśva-mānī tiryak-			
-a a- = -ā-			-k m-=-ñ m-
m Nom Sg Conj n Nom Sg Adverb	n Acc Du	3rd Du Pres	n Nom Sg 3rd Sg Present
mānī ca yat prthak bhūte kurutaḥ tad-ubhayam karoti			
-k b- = -g b-	-ḥ t- = -s t-		-m k-=-ṃ k-

A rope along the diagonal of a rectangle makes [area] which separately them both, one measuring the long-side and one measuring the transverse-side, make.

Element	Type	Meaning	Formation
dīrgha- दीर्घ-	Adjective	long, elongated	
caturaśra- चतुरश्र-	Adjective	square, rectangle	
akṣṇayā अक्षण्या	Adverb	diagonally, along the diagonal	(akṣ)-sna-yā;(akṣ) I 'to cross';-sna-[Substantify];-yā[Adverb of manner]
rajju- रज्जु-	Noun	rope	
pārśva- पार्श्व	Noun	flank, long	*parśu-a-;parśu-[Noun:'coast'];-a-[Noun]
mānin- मानिन्-	Adjective	measuring	vrddhi(man)-in-;(man) IV, VIII 'to think, measure';-in-[Regular Action]
tiryak- तिर्यक्	Adverb	across, obliquely, transversely	
ca च	Conjunction	and, also, as well a	
yad- यत्	Pronoun	Relative: who, which, what, that	
prthak पृथक्	Adverb	separately	
bhūta- भूत-	Adjective	being	(bhū)-ta-;(bhū) I 'to be';-ta-[Past Pass PcpI]
(kr) (कृ)	VIII Verb	to do, accomplish	
tad- तद्-	Pronoun	3rd person: he, then, this	
ubhaya- उभय-	Adjective	both	ubha-ya-;ubha-[Pronoun:'both'];-ya-[Possessive]

caturaśra-m	Singular	Dual	Plural	yad-n	Singular	Dual	Plural	(kr)	VIII	Primary	Present
Nominative	caturaśraḥ	caturaśrau	caturaśrāḥ	Nominative	yat	ye	yāni	Active	Singular	Dual	Plural
Vocative	caturaśra	caturaśrau	caturaśrāḥ	Vocative	-	-	-	First	karomi	kurvaḥ	kurmaḥ
Accusative	caturaśram	caturaśrau	caturaśrān	Accusative	yat	ye	yāni	Second	karoṣi	kuruthaḥ	kurutha
Instrumental	caturaśreṇa	caturaśrābhyām	caturaśraiḥ	Instrumental	yena	yābhyām	yaiḥ	Third	karoti	kurutaḥ	kurvanti
Dative	caturaśrāya	caturaśrābhyām	caturaśrebhyaḥ	Dative	yasmai	yābhyām	yebhyaḥ				
Ablative	caturaśrāt	caturaśrābhyām	caturaśrebhyaḥ	Ablative	yasmāt	yābhyām	yebhyaḥ				
Genitive	caturaśrasya	caturaśrayoḥ	caturaśrāṇām	Genitive	yasya	yayoḥ	yeṣām				
Locative	caturaśre	caturaśrayoḥ	caturaśreṣu	Locative	yasmin	yayoḥ	yeṣu				
raju-f	Singular	Dual	Plural	bhūta-n	Singular	Dual	Plural				
Nominative	rajuḥ	rajjū	rajjavaḥ	Nominative	bhūtam	bhūte	bhūtāni				
Vocative	rajjo	rajjū	rajjavaḥ	Vocative	bhūta	bhūte	bhūtāni				
Accusative	rajjum	rajjū	rajjūḥ	Accusative	bhūtam	bhūte	bhūtāni				
Instrumental	rajjvā	rajjubhyām	rajjubhiḥ	Instrumental	bhūtena	bhūtābhyām	bhūtaiḥ				
Dative	rajjvai rajjave	rajjubhyām	rajjubhyaḥ	Dative	bhūtāya	bhūtābhyām	bhūtebhyaḥ				
Ablative	rajjvāḥ rajjoḥ	rajjubhyām	rajjubhyaḥ	Ablative	bhūtāt	bhūtābhyām	bhūtebhyaḥ				
Genitive	rajjvāḥ rajjoḥ	rajjvoḥ	rajjūnām	Genitive	bhūtasya	bhūtayoḥ	bhūtānām				
Locative	rajjvām rajjau	rajjvoḥ	rajjuṣu	Locative	bhūte	bhūtayoḥ	bhūteṣu				
mānin-m	Singular	Dual	Plural	ubhaya-n	Singular	Dual	Plural				
Nominative	mānī	māninau	māninaḥ	Nominative	ubhayam	-	ubhayāni				
Vocative	mānin	māninau	māninaḥ	Vocative	ubhaya	-	ubhayāni				
Accusative	māninam	māninau	māninaḥ	Accusative	ubhayam	-	ubhayāni				
Instrumental	māninā	mānibhyām	mānibhiḥ	Instrumental	ubhayena	-	ubhayaiḥ				
Dative	mānine	mānibhyām	mānibhyaḥ	Dative	ubhayasmai	-	ubhayebhyaḥ				
Ablative	māninaḥ	mānibhyām	mānibhyaḥ	Ablative	ubhayāt ubhayasmāt	-	ubhayebhyaḥ				
Genitive	māninaḥ	māninoḥ	māninām	Genitive	ubhayasya	-	ubhayeṣām				
Locative	mānini	māninoḥ	māniṣu	Locative	ubhaye ubhayasmin	-	ubhayeṣu				

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dīrghacaturaśrasyākṣṇayā rajjuḥ pārśvamānī tiryāṅmānī
ca yatpṛthagbhūte kurutastadubhayaṃ karoti |

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