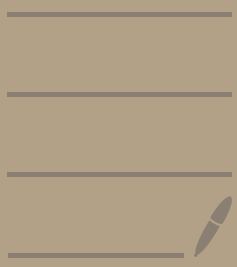
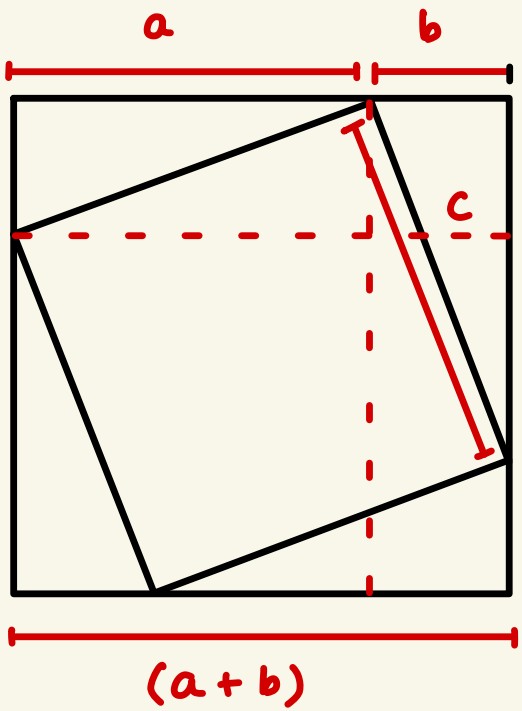
L9 - 03/09/2024



Pf - (General Case)



We will compute the area of sq. with side $(a+b)$ in 2 ways

1. ar. of sq. (side a)
   + ar. of sq. (side b)
   + 2 × ar. of rect. (sides a, b)

2. ar. of sq. (side c)
   + 4 × ar. of tr. (sides a, b)

$$(a+b)^2 = a^2 + b^2 + 2(ab)$$
$$= c^2 + 4\left(\frac{1}{2}ab\right)$$

$$\Rightarrow \quad c^2 = a^2 + b^2$$ □

- Lifetime of Pythagoras : 572 - 501 BC

So, Baudhayana's discovery predates Pythagoras'.

- <u>Henkel</u> - (Historian)

'Pythagoras' proof savours the Indian style more than the Greek.'

NOTE - The pf. of the general case is NOT given in Sulvasutras.

The author believes that if they had produced a pf., it would have been along the lines of the one presented here.