

$$2 \text{ PDAS} \rightarrow 1 \text{ IGAS} + 1 \text{ IGAS} = a^2 + b^2$$

$$1 \text{ PDAS} \rightarrow \sum (\text{IGAS} + \text{IGAS}) = c^2$$

$$c^2 = 4A + f^2 = a^2 + b^2$$

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

$$c^2 = a^2 + b^2 = 2ab + b^2 - 2ab + a^2$$