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Bl 8vn 2

$$\begin{aligned} \left(\frac{a+b}{2}\right)^2 - \left(\frac{a-b}{2}\right)^2 &= \frac{(a+b)^2}{2^2} - \frac{(a-b)^2}{2^2} \\ &= \frac{(a+b)^2 - (a-b)^2}{4} = \frac{a^2 + 2ab + b^2 - (a^2 - 2ab + b^2)}{4} \\ &= \frac{a^2 + 2ab + b^2 - a^2 + 2ab - b^2}{4} = \frac{4ab}{4} = \underline{\underline{ab}} \end{aligned}$$

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