

September 11th

$$\text{If } A = 2^{2015} + 2^{-2015} \text{ and } B = 2^{2015} - 2^{-2015}$$

find the value of $A^2 - B^2$



$$\begin{aligned} A^2 - B^2 &= (A + B)(A - B) \\ &= (2^{2015} + 2^{-2015})(2^{2015} + 2^{-2015}) \\ &= (2 \times 2^{2015}) \times (2 \times 2^{-2015}) \end{aligned}$$

$$= 4$$