



# An Interesting Relationship Between Squares and Hex Numbers

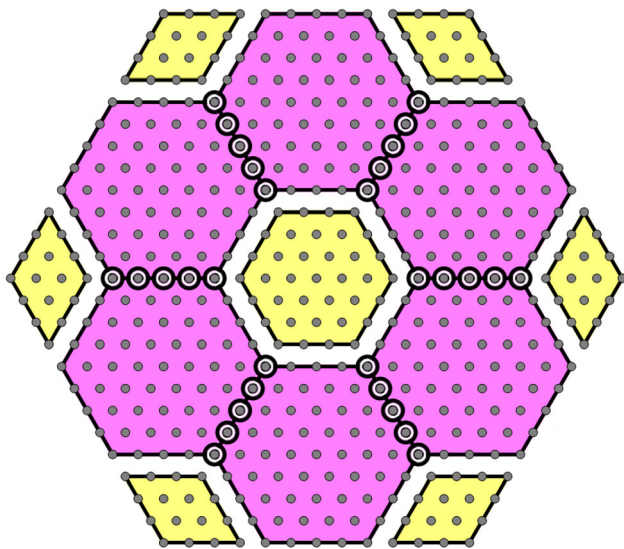
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**PROPOSITION.** Let  $b_n$  stand for the  $n$ th hexagonal number. Then for  $n \in \mathbb{N}$ , the following identity holds:

$$b_{3n-2} = 6b_n + 1b_{n-1} + 6(n-1)^2 - 6n$$

**PROOF.** The proof is demonstrated for  $n = 5$ . □

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