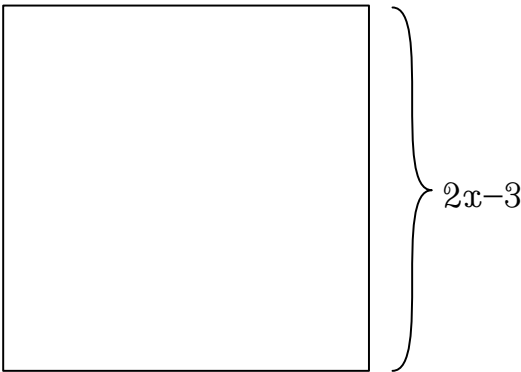Find a polynomial expression that represents the area of the square
shown in the figure.

$2x-3$

$$\begin{aligned}
\text{Area} &= (2x-3)(2x-3) && \text{definition of area as the product of the sides} \\
&= (2x)(2x)+(2x)(-3)+(-3)(2x)+(-3)(-3) && \text{FOIL} \\
&= 4x^2-6x-6x+9 && \text{carry out the multiplications} \\
&= 4x^2-12x+9 && \text{combine like terms}
\end{aligned}$$

FOIL=Product of Firsts+Product of Outers+Product of Inners+Product of Lasts

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$$(2x)(2x)+(2x)(-3)+(-3)(2x)+(-3)(-3)$$

$$(2x-3)(2x-3)(2x-3)(2x-3) \quad (2x-3)(2x-3)(2x-3)(2x-3)$$