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Multiplication by Vector

$$\begin{bmatrix} 5 & 4 & 3 & 2 \\ 9 & 7 & 6 & 5 \\ 3 & 9 & 12 & 15 \\ 22 & 18 & 16 & 10 \end{bmatrix} \begin{bmatrix} 7 \\ 11 \\ 10 \\ 23 \end{bmatrix}$$

$$\begin{array}{l} (5 \times 7) \quad (4 \times 11) \quad (3 \times 10) \quad (2 \times 23) \\ (9 \times 7) \quad (7 \times 11) \quad (6 \times 10) \quad (5 \times 23) \\ (3 \times 7) \quad (9 \times 11) \quad (12 \times 10) \quad (15 \times 23) \\ (22 \times 7) \quad (18 \times 11) \quad (16 \times 10) \quad (10 \times 23) \end{array}$$

$$\begin{bmatrix} 35 & 44 & 30 & 46 \\ 63 & 77 & 60 & 115 \\ 21 & 99 & 120 & 345 \\ 154 & 198 & 160 & 230 \end{bmatrix}$$