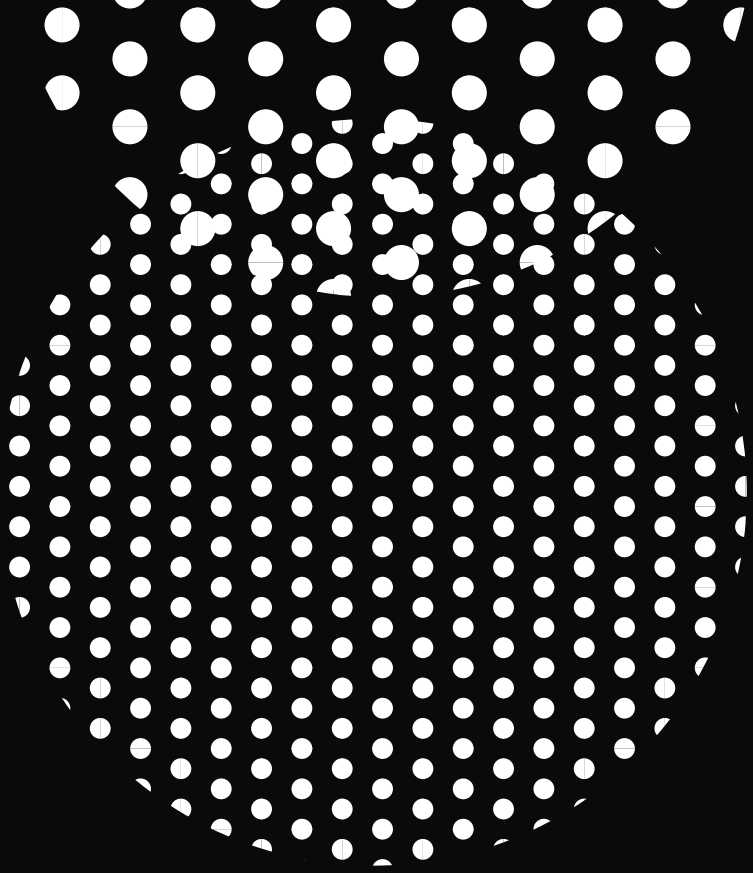

$$\begin{pmatrix} 5 & 7 & 6 \\ 0 & -2 & 2 \\ -4 & 8 & 4 \end{pmatrix} \begin{pmatrix} 2 \\ 3 \\ 1 \end{pmatrix} = \begin{pmatrix} 10 + 21 + 6 \\ -6 + 2 \\ -8 + 24 + 4 \end{pmatrix}$$

$$= \begin{pmatrix} 37 \\ -4 \\ 20 \end{pmatrix}$$

$$\begin{pmatrix} 1 & 2 & -1 \end{pmatrix} \begin{pmatrix} 37 \\ -4 \\ 20 \end{pmatrix} = 37 - 8 - 20 = 17 - 8 = 9$$