The Jordan Trick

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$$R/\langle p^s \rangle = \langle x \rangle / p^s x = 0 \qquad x_0 = x$$

$$= \langle x_0 \dots x_{s-1} \rangle \Big/ \begin{matrix} p x_i + x_{i+1} = 0 \\ p x_{s-1} = 0 \end{matrix} \qquad \begin{matrix} x_1 = -px \\ x_2 = p^2 x \end{matrix}$$

so $(p^s) \sim \begin{pmatrix} p & & & \\ 1 & p & & \\ & 1 & p & \\ & & 1 & p \end{pmatrix}$

more precisely: $\begin{pmatrix} 1 & & & \\ & 1 & & \\ & & \ddots & \\ & & & p^s \end{pmatrix} \sim \begin{pmatrix} p & & & & \\ 1 & p & & & \\ & 1 & p & & \\ & & 1 & p & \\ & & & 1 & p \end{pmatrix}$