(% i1) A: matrix([1 -l -s*l_s,1-l -s*l_s - Nsl_S,M*(l_s + Nl_S)],[-s*l_S,-Nsl_S,M*Nl_S],[-s*l_D,-NSl_D,1-delta + M*Nl_D + g_D]);

(A)
$$\begin{pmatrix} -l_s s - l + 1 & -l_s s - l - Nsl_S + 1 & M\ (l_s + Nl_S) \\ -l_S s & -Nsl_S & M\ Nl_S \\ -l_D s & -NSl_D & g_D - delta + M\ Nl_D + 1 \end{pmatrix}$$

(% i2) invert(A);
(% o2)
$$\begin{pmatrix} \frac{M\ NSl_D Nl_S - Nsl_S(g_D - delta + M\ Nl_D + 1)}{((g_D - delta + M\ Nl_D + 1) l_S s - M\ Nl_S l_D s)(-l_s s - l - Nsl_S + 1) + (M\ NSl_D Nl_S - Nsl_S(g_D - delta + M\ Nl_D + 1))(-l_s s - l + 1) + M\ (l_s + Nl_S)(NS} \\ \frac{(g_D - delta + M\ Nl_D + 1) l_S s - M\ Nl_S l_D s}{((g_D - delta + M\ Nl_D + 1) l_S s - M\ Nl_S l_D s)(-l_s s - l - Nsl_S + 1) + (M\ NSl_D Nl_S - Nsl_S(g_D - delta + M\ Nl_D + 1))(-l_s s - l + 1) + M\ (l_s + Nl_S)(NS} \\ \frac{NSl_D l_S s - Nsl_S l_D s}{((g_D - delta + M\ Nl_D + 1) l_S s - M\ Nl_S l_D s)(-l_s s - l - Nsl_S + 1) + (M\ NSl_D Nl_S - Nsl_S(g_D - delta + M\ Nl_D + 1))(-l_s s - l + 1) + M\ (l_s + Nl_S)(NS} \end{pmatrix}$$

(% i3) b: matrix([b1],[b2],[b3]);

(b)
$$\begin{pmatrix} b1 \\ b2 \\ b3 \end{pmatrix}$$

(% i8) x : invert(A).b;
(x)
$$\begin{pmatrix} \frac{b2\ (-(g_D - delta + M\ Nl_D + 1)(-l_s s - l - Nsl_S + 1) - M\ NSl_D(l_s + Nl_S))}{((g_D - delta + M\ Nl_D + 1) l_S s - M\ Nl_S l_D s)(-l_s s - l - Nsl_S + 1) + (M\ NSl_D Nl_S - Nsl_S(g_D - delta + M\ Nl_D + 1))(-l_s s - l + 1) + M\ (l_s + Nl_S)(NS} \\ \frac{b2\ ((g_D - delta + M\ Nl_D + 1)(-l_s s - l + 1) + M\ l_D(l_s + Nl_S) s)}{((g_D - delta + M\ Nl_D + 1) l_S s - M\ Nl_S l_D s)(-l_s s - l - Nsl_S + 1) + (M\ NSl_D Nl_S - Nsl_S(g_D - delta + M\ Nl_D + 1))(-l_s s - l + 1) + M\ (l_s + Nl_S)(NS} \\ \frac{b3\ (l_S s\ (-l_s s - l - Nsl_S + 1) - Nsl_S(-l_s s - l + 1))}{((g_D - delta + M\ Nl_D + 1) l_S s - M\ Nl_S l_D s)(-l_s s - l - Nsl_S + 1) + (M\ NSl_D Nl_S - Nsl_S(g_D - delta + M\ Nl_D + 1))(-l_s s - l + 1) + M\ (l_s + Nl_S)(NS} \end{pmatrix}$$