This yields 2 linear equations for r and s in terms of A and A_1. The solutions are:

$$r = -\frac{1}{2}\;\frac{\begin{vmatrix} k_1^2 - k_2^2 & k_1^6 + 1.62\,k_2^6 \\ k_1^2 - k_3^2 & k_1^6 - 1.78\,k_3^6 \end{vmatrix}}{\begin{vmatrix} k_1^4 + \frac{k_2^4}{4} & k_1^6 + 1.62\,k_2^6 \\ k_1^4 + .67\,k_3^4 & k_1^6 - 1.78\,k_3^6 \end{vmatrix}}$$

and

$$s = -\frac{1}{2}\;\frac{\begin{vmatrix} k_1^4 + \frac{k_2^4}{4} & k_1^2 - k_2^2 \\ k_1^4 + .67\,k_3^4 & k_1^2 - k_3^2 \end{vmatrix}}{\begin{vmatrix} k_1^4 + \frac{k_2^4}{4} & k_1^6 + 1.62\,k_2^6 \\ k_1^4 + .67\,k_3^4 & k_1^6 - 1.78\,k_3^6 \end{vmatrix}}$$

We can now compute B and B_1 as a function of A and A_1.

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