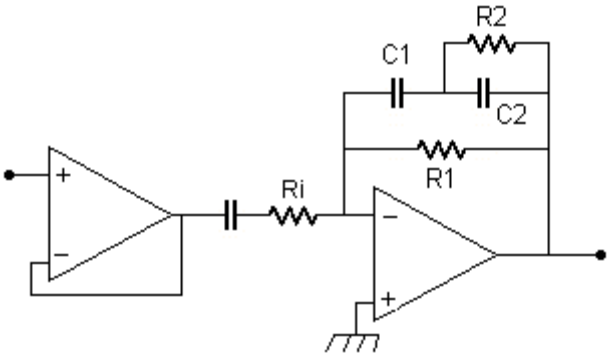

Source: https://www.renardson-audio.com/phono-1.html
Partly his text, partly mine.

In a 33 :
C1 = C103 = 29nF
C2 = C102 = 10nF
R1 = R305 = 120K
R2 = R109 = 8K2

Starting by calculating the network impedance we can then find relationships between the component values needed to give the time constants, T1 = 3180us, T2 = 318us, and T3 = 75us.
The calculation is rather long, so I have put it on a separate page, RIAA calculation.
The result is:

C2*R2 + C1*R2 = T2
R1*C1 + R2*C2 + R2*C1 = T1 + T3
R1*R2*C1*C2 = T1*T3
C in uF and R in R, T in uS

Asume:
C1*R1 = X
C2*R2 = Y
C1*R2 = Z
Then:
Y + Z = T2
X + Y + Z = T1 +T3
X*Y = T1*T3
Substitute 1 and 3 in 2 gives a solution for Y, Y is 57.194, X = 2780.012 and Z = 392.806
Y/Z gives the C2/C1 ratio = 0.1456
So choose C1 33nF, C2 will be 4.8nF
R2 = 11K9
R1 = 84.242K
This is for the 78RPM time constants! T1 = 3180uS, T2 = 450uS and T3 = 50uS
With some small tweaking in the simulator and making the signal generator a invers 78RPM generator, the response is very flat.
But I also tested the 78RPM generator in a normal RIAA input, there is a slight bass lift and a treble droop. This can be corrected with about 10% bass minus and 25 a 30% treble lift in the 33 simulator.
So the response in a 33 can be more or less accurate with the tone controls, but I have a large collection of 78's from my father, they are in very good nick, but no way you want them played with a treble lift! So a 0dB correct 78RPM curve maybe useful for archive applications, with heavy filtering afterwards, but for listening it is a dreadful idea. The tone controls in a 33 can solve the treble droop, but you don't want that!