

Re: -- Polynomial approximation for  $1/(x+a)$  in large domain.

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I am looking at how polynomial approximations compare to complete functions in implementation, digital filters etc. I agree that  $1/x$  would go to zero, and polynomials would go to infinity for large  $x$ , which is why I am restricting the domain – and so, as can be seen from the second post, the coefficients of higher powers of  $x$  become smaller and smaller, as is to be expected, in order to make the approximation tend to zero for large  $x$ . In a finite domain however, given a sufficiently high order, I guess I should be able to get a fairly accurate result (again, as seen above). I am looking at complex functions, hence my second post. I guess that it would be more appropriate for a Maple group however.

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