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hw12.m

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% CHRISTINE SHUE
% DUE: AUGUST 1, 2017
% HW 12: Compare the accuracy of Simpson's Rule and the Trapezoidal Rule.
% /u/erdos/students/cshue1/cisc4750/week5/hw12.m
%
f = @(x) (x+1).^(-1);
a = 2;
b = 3;
n = 4;

i_t = trapez_n(f,a,b,n);
i_s = simps_n(f,a,b,n);
i = integral(f,a,b);
e_t = i_t-i;
e_s = i_s-i;
fprintf( '\t\t Approx.\tError\n' );
fprintf( 'Trapezoidal Rule ' );
fprintf( '%10f %10f\n', i_t, e_t );
fprintf( 'Simpson''s Rule ' );
fprintf( '%10f %10f\n', i_s, e_s );
```