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In[26]:= ClearAll;
Romberg[a0_, b0_, n_] :=
Module[{a = N[a0], b = N[b0], h, I},
  h = (b - a)/n;
  I = (h/2)*(f[a] + f[b] + 2*(Sum[f[a + h*k], {k, 1, n - 1}]));
  Return[I];
];
f[x_] := 1/(x^3 + 1)^0.5;
T1 = Romberg[0, 3, 1];
T2 = Romberg[0, 3, 2];
Print["T1 = ", T1];
Print["T2 = ", T2];
T = (4*T2 - T1)/3;
Print["Answer is = ", T];

T1 = 1.78347
T2 = 1.60887
Answer is = 1.55067

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In[35]:= f[x_] := 2^x;
T1 = Romberg[0, 4, 1];
T2 = Romberg[0, 4, 2];
Print["T1 = ", T1];
Print["T2 = ", T2];
T = (4*T2 - T1)/3;
Print["Answer is = ", T];

T1 = 34.
T2 = 25.
Answer is = 22.

```