Theoretical Models for Computing

Lab #6

Instructor: Dr. Ha Viet Uyen Synh.

1. Estimate the common logarithm of 10 using linear interpolation.

(a) Interpolate between log 8=0.9030900 and log 12=1.0791812.

(b) Interpolate between log 9 = 0.9542425 and log 11 =1.0413927. For each of the interpolations, compute the percent relative error based on the true value.

2. Use Newton's interpolating polynomial to determine y at x =3.5 to the best possible accuracy

x	0	1	2.5	3	4.5	5	6
y	2	5.4375	7.3516	7.5625	8.4453	9.1875	12