Numerical Analysis HW1

**1.1**

**13.**

**a.**

So, we need to show that ,

This is the actual error

This would be the maximum error bound.

**b.** the error formula is and the interval [0.5,1.5] on the interval [0.5,1.5]

**C.**

But the actual is

**d.** Integrating on the interval [0.5,1.5] will give us the error bound of 0.0583. But the actual error that we get is

4.687 X 10-3

**17.**

Actual error is:

**1.2**

**7b.**

Absolute Error:

Relative Error: