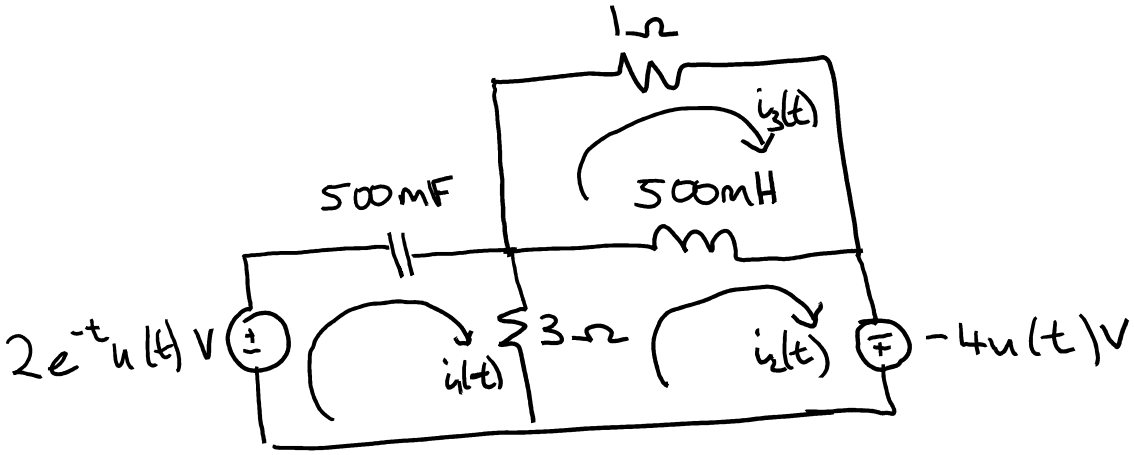
Name: **Student ID:**

Pre-tutorial 9 Questions (to be attempted before class on August 23rd, 2019)

Chapter 15, Ex 11: s-Domain Mesh Analysis



For the circuit drawn above:

a) Draw the **s**-domain equivalent. Hint: You can work out the initial conditions by inspection.

b) Write the three **s**-domain mesh equations, and simplify so they are in the form $a\mathbf{I_1(s)} + b\mathbf{I_2(s)} + c\mathbf{I_3(s)} = d$.

Chapter 15, Ex 31: Poles and Zeros

Determine the poles and zeros for the following **s**-domain functions:

a) $\frac{s}{s+12.5}$

b) $\frac{s(s+1)}{(s+5)(s+3)}$

c) $\frac{s+4}{s^2+8s+7}$

d) $\frac{s^2-s-2}{3s^3+24s^2+21s}$