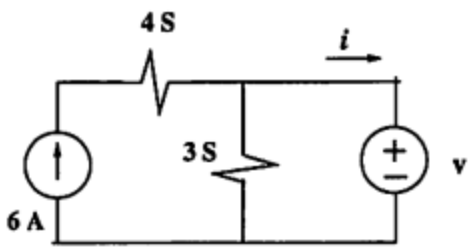
ES 332: Spring 2020, Practice Exam

Name: Answers 1/2

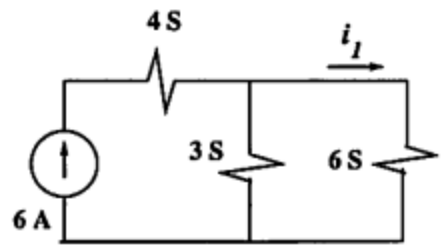
Closed book. Show all work. Partial credit will be given. No credit will be given if an answer appears with no supporting work.

1. (a) For circuit (a) shown in the figure below, find i when the voltage source $v = 2V$
   (b) For circuit (b) shown in the figure below, find i_1



(a)

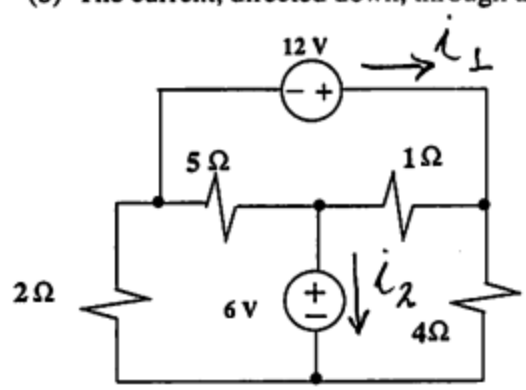
$i = 0$ A



(b)

$i_1 = 4$A

2. For the circuit shown in the figure below, use mesh analysis to find
   (a) The current directed to the right, through the 12-V source
   (b) The current, directed down, through the 6-V source

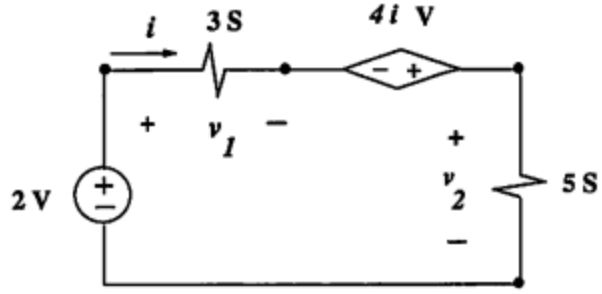


$i_1 = 4$A

$i_2 = 0$ A

Answers 2/2 Practice Exam

3. For the circuit shown in the figure below, determine the values of v_1 and v_2



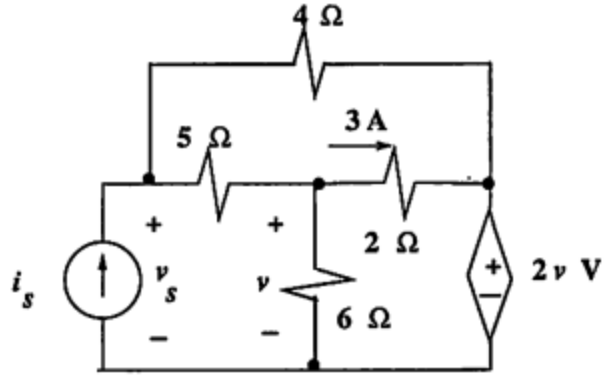
$$v_1 = -\frac{5}{26}\ \text{V}$$

$$v_2 = -\frac{3}{26}\ \text{V}$$

4. For the circuit shown in the figure below,

   (a) Find i_s,

   (b) Find the resistance R_{eq} seen by the current source.



a) $i_s = 4\ \text{A}$

b) $R_{eq} = \frac{2}{3}\ \Omega$