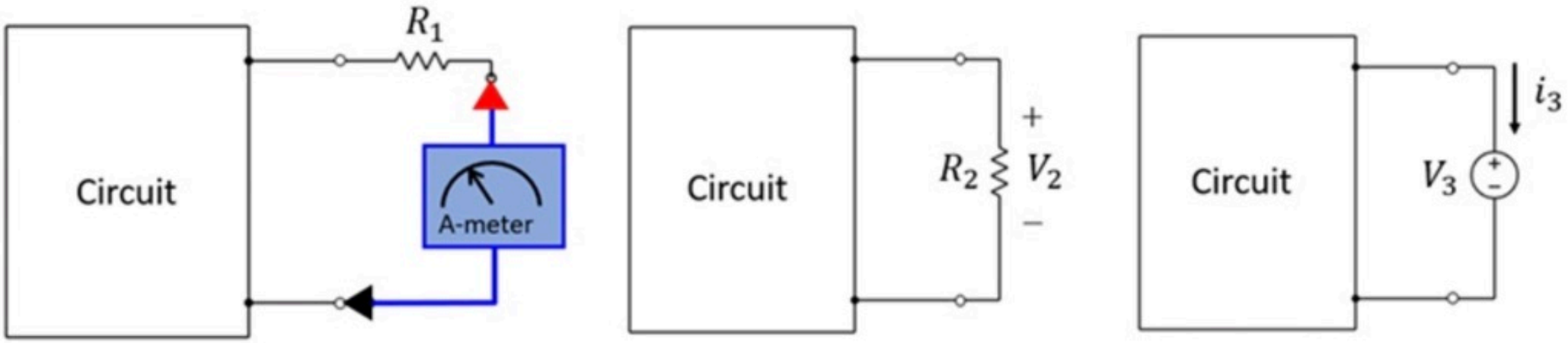
Circuit theorems 017

No more attempts left.

The box contains a linear circuit. This same circuit is placed into the three configurations shown below.

The reading of the ammeter in configuration 1 is given as X.

Find the current i_3 in configuration 3.



Configuration 1 **Configuration 2** **Configuration 3**

Given Variables:

X : 8 A

R1 : 1 ohm

V2 : 20 V

R2 : 10 ohm

V3 : 2 V

Calculate the following:

i3 (A) :

Hint: Replace the circuit in the box as its Thevenin equivalent model