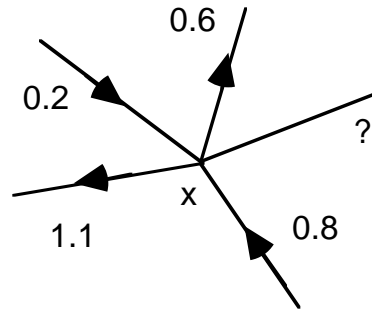
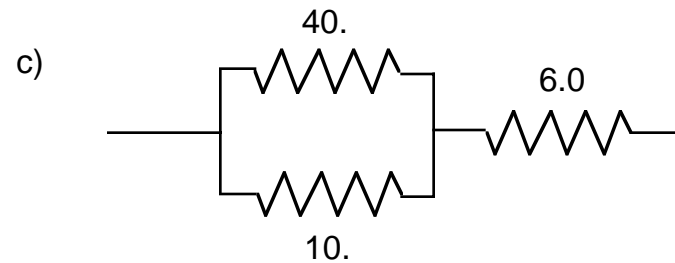
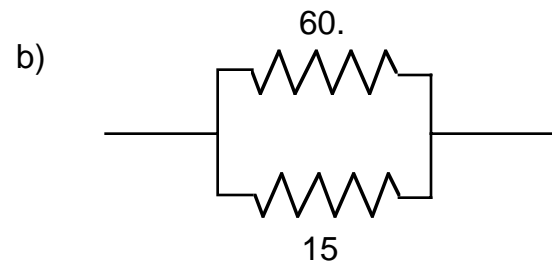
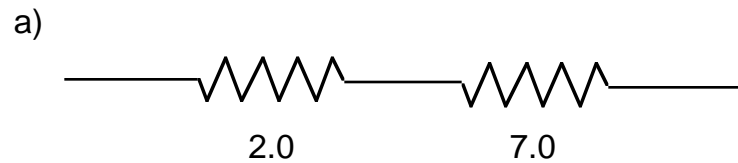


## Circuits : Review-5

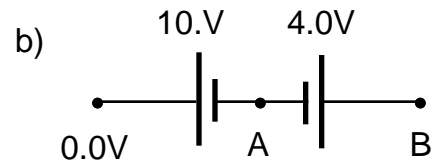
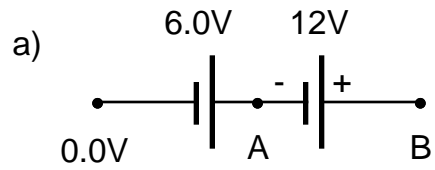
1) Find the magnitude and direction of the unknown current. Currents in amperes are given.



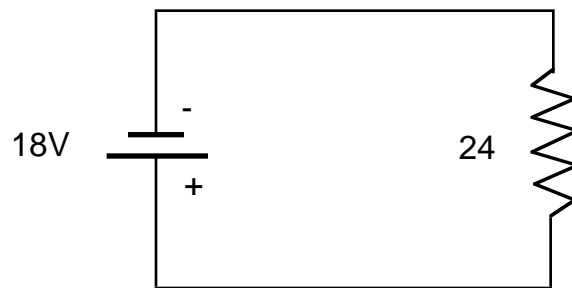
2) Find the total resistance.



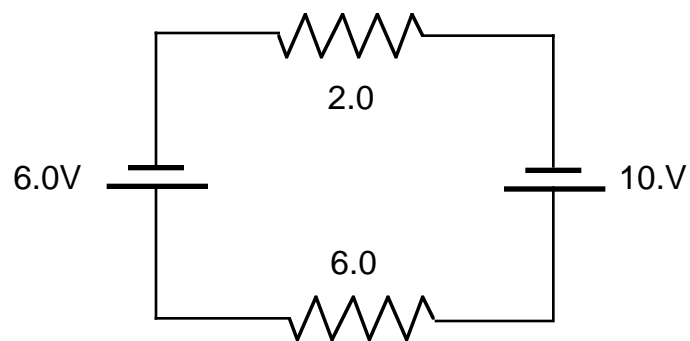
3) Find the potential at points A and B.



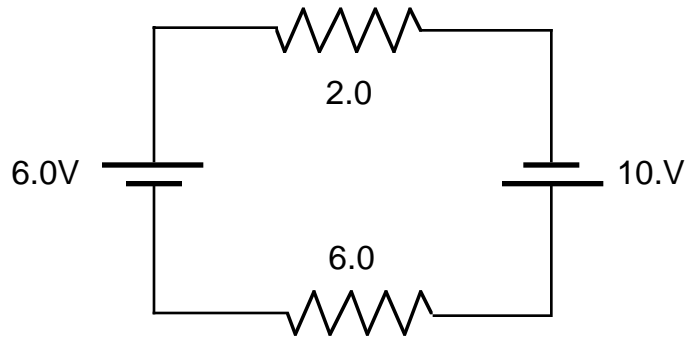
4) Find the current in the following circuit. Show the direction.



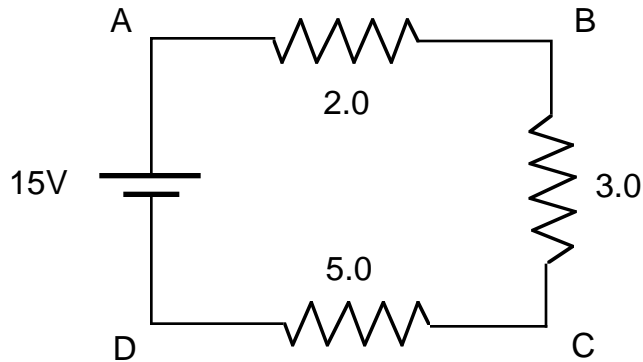
5) Find the current in the circuit. Give the current direction.



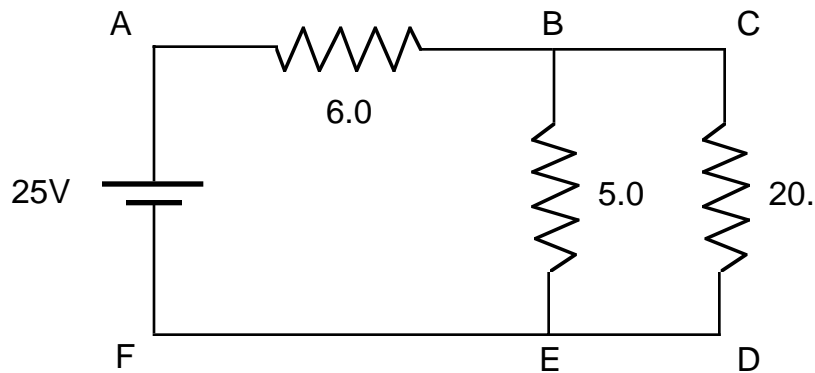
6) Find the current in the circuit. Give the current direction.



7) Find the potential and current at points A, B, C, and D. Assume that the potential at D is equal to 0.0V.



8) Find the currents across all resistors. Find the potential at points A, B, C, D, E, and F. Assume that the potential at F = 0.0V.



Answers: 1) 0.7A towards junction x, 2)a)  $9.0\Omega$ , b)  $12\Omega$ , c)  $14\Omega$ , 3)a)  $A = +6.0V$ ,  $B = +18V$ , b)  $A = -10V$ ,  $B = -6.0V$ , 4) 0.75A (counter-clockwise), 5) 0.50A (clockwise), 6) 2.0A, (clockwise), 7) all currents equal 1.5A,  $V(A) = 15V$ ,  $V(B) = 12V$ ,  $V(C) = 7.5V$ , 8)  $I(6) = 2.5A$ ,  $I(5) =$

2.0A,  $I(20.) = 0.50\text{A}$ ,  $V(A) = 25\text{V}$ ,  $V(B) = 10.\text{V}$ ,  $V(C) = 10.\text{V}$ ,  $V(D) = 0.0\text{V}$ ,  $V(E) = 0.0\text{V}$ ,  $V(F) = 0.0\text{V}$ .