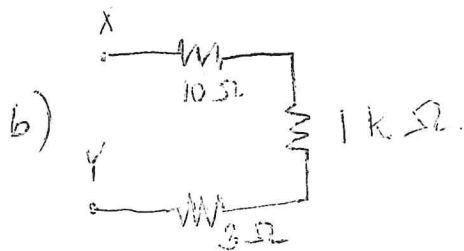
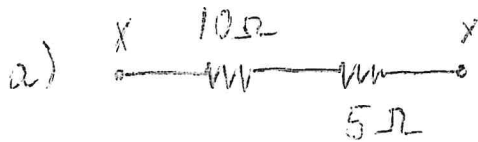


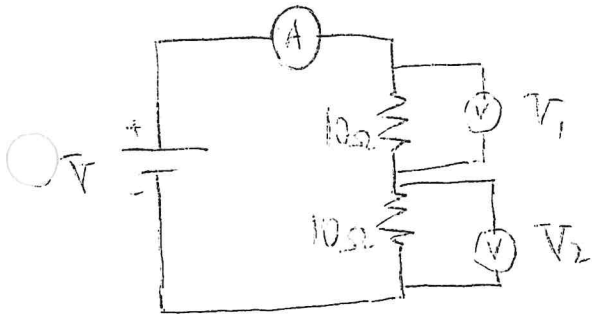
Resistors in Series

1. Write an equation you would use to find equivalent resistance in a circuit that has 5 resistors all connected in series.

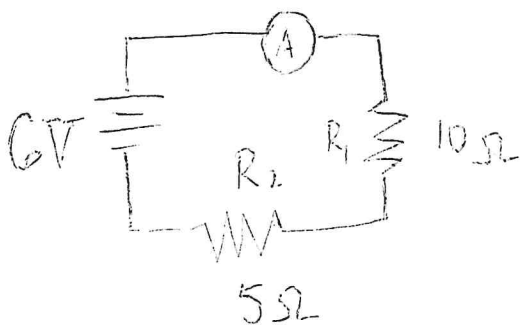
2. Find the equivalent resistance between points X and Y:



3. Find the a) net resistance, b) electric current, c) voltage drop across resistor 1 and d) voltage drop across resistor 2.



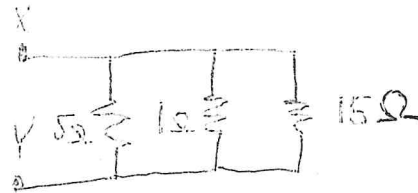
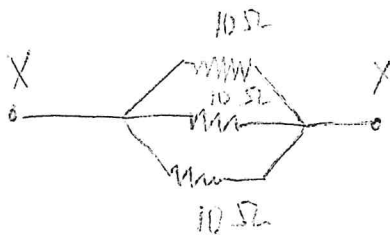
4. Find the electric current and voltage drop across resistor 2. Show proper connection of a voltmeter to measure the voltage drop across resistor 2.



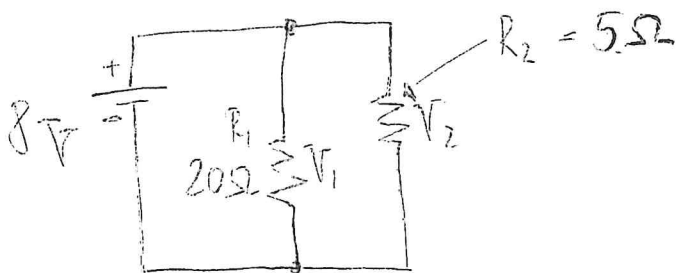
Resistors in Parallel

1. Write an equation you would use to find equivalent resistance in a circuit that has 5 resistors all connected in parallel.

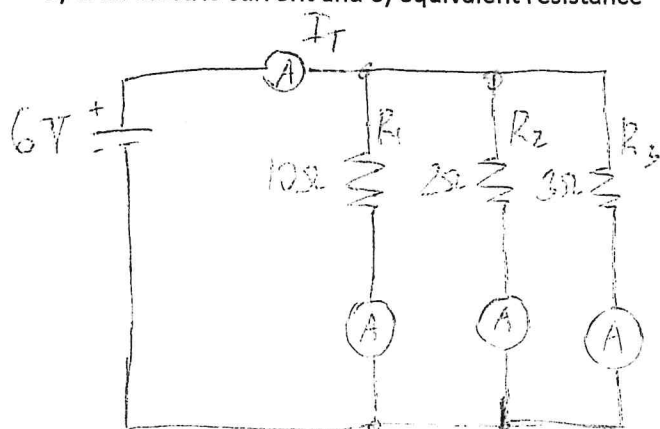
2. Find the equivalent resistance between points X and Y:



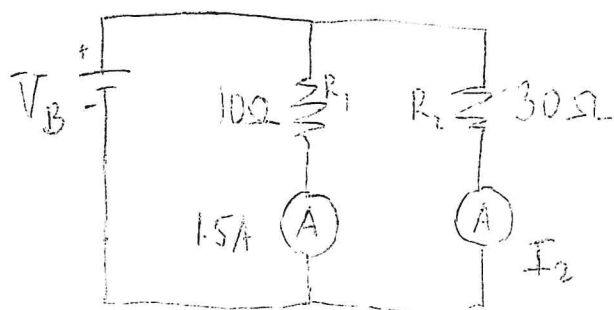
3. Find a) voltage drop across resistor 1, b) voltage drop across resistor 2, c) electric current through resistor 1, d) electric current through resistor 2, e) equivalent resistance in two different ways



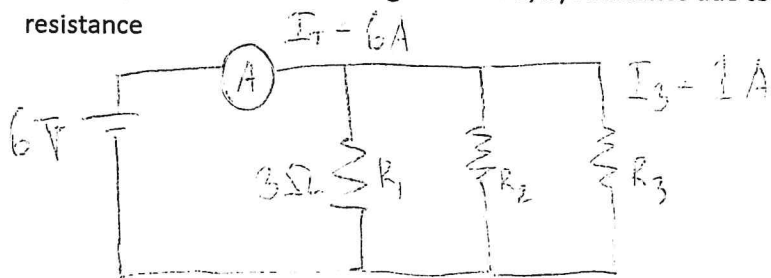
4. Find a) electric current through resistor 1, b) electric current through resistor 2, c) electric current through resistor 3, d) total electric current and e) equivalent resistance



5. Find a) voltage of the battery and b) electric current through resistor 2



6. Find a) electric current through resistor 2, b) resistance due to resistor 2, c) resistance due resistor 3 and d) net resistance



~~7. Read textbook on page 627-628. Summarize the effects of electric current on human physiology.~~

~~8. What safety precautions do you have to follow when operating appliances that use electricity?~~