## Breadboard Lab \#8

## "Flashing lights"

1) Breadboard the following schematic diagram. Make sure your wires are flat! Set the Power Supply to 9 volts.


R1,R3: 10K (brown, black, orange)
C1,C2: 10uf capacitor
R2,R4: 330 ohm (orange, orange, brown)
2) When the circuit is working properly the two transistors oscillate (switch back and forth) causing the LEDs to flash alternately. Use the Electronic Components PowerPoint presentation from class to help.
3) Answer the following questions
a) When a 100uf capacitor is substituted for the 10uf capacitor, the frequency the LEDs flash will $\qquad$ .
b) If you substitute the 330 resistors with 10 K resistors the brightness of the LEDs would $\qquad$ .
c) The cathodes of the LEDs are connected to the $\qquad$ .
d) The negative leads of the capacitors are connected to the
$\qquad$ and the $\qquad$ .

