TRIZ6 APRZO19 CIRCUITS: OHM'S LAW ELECTRICAL Examples: resistor 'Electrical stores Ballery Say 1.5V Toaster . light bulb (uslte) electriel · Anythile that vois electricity e.g. a computer Ampere) Wreyt Giruptes through labes

relates the voltage applied to the current that flows through Ohm's law a cirwit to the armit. $\sqrt{\frac{1}{1}}$ If V is the voltige applied & I the insentity The correct, then when changing WHAT we the CONNECT to that voltage, i.e., when changing the redistor V&I are directly proportional V=RI

Consider the plot of Viversus I on previous page. Which of the two rehistors, r, r, is larger? In circuit 1: V = r TIn viriait 2: $V = V_2 I$ $V_1 R V_2$ are but the slopes of those lines Henle, MSR

The Juit of Joltage: [V]=V="volts" Units 11 11 n intensity: [I]=A = "Amperes" (also called) (amperage) 11 11 resistance: [R]= SZ=Ohms" Remember: A = charge (through a cossection)



RESISTORS



IN SERVIES & IN PARALEL

 $V_{1} = r_{1} I$ $V_{2} = r_{2} I$ $V = r_{1} I + r_{2} I = (r_{1} + r_{2}) I$ $V = V_{1} + V_{2}$ $flence, R = r_{1} + r_{2}$



The cullent that flows through both resistors is ‡ But the usltage drop across each is the Same, namely, V. Hence they are connected in