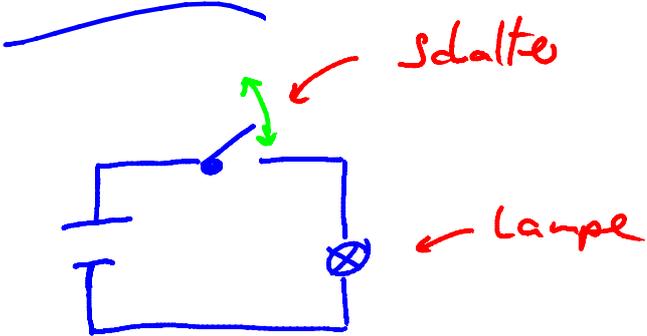
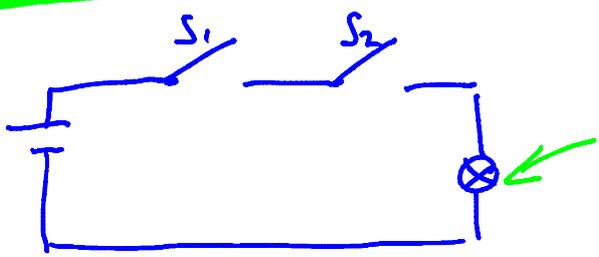


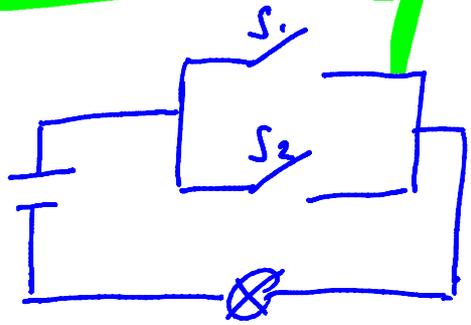
Schaltungen 7.4.2020



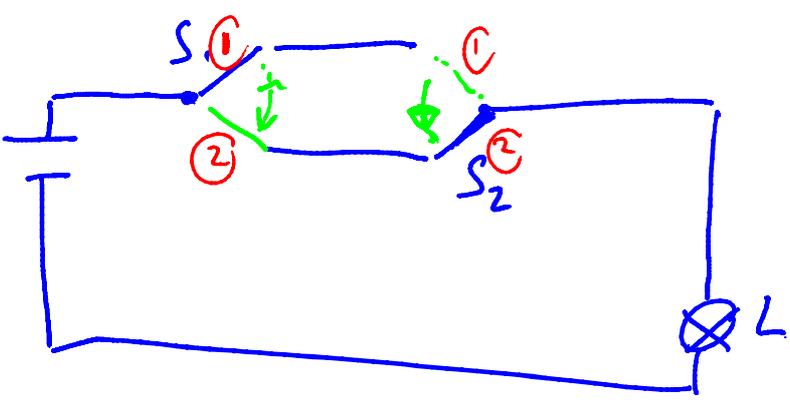
und-Schaltung



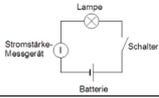
oder-Schaltung



Kellerschaltung

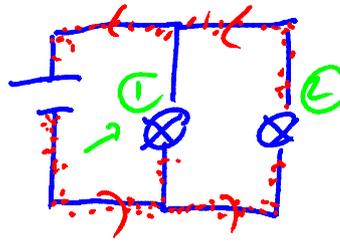
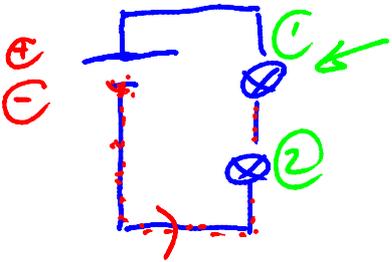


S_1	S_2	L
1	1	leuchtet (:)
1	2	0
2	1	0
2	2	1



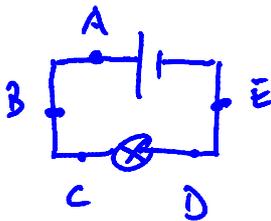
Reihenschaltung

Parallelschaltung



Diverse Spannungen messen

Stromfluss (Ampère)



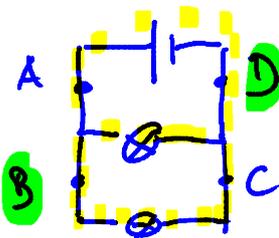
Spannung zwischen ...
 $AB, AC, DE = 0$
 BC

$$I(A) = I(B) = I(C) = I(D) = I(E)$$

Serie

$AD, BD, CD \neq 0$
 BD, CD
 $AE, AD \dots$

Parallel



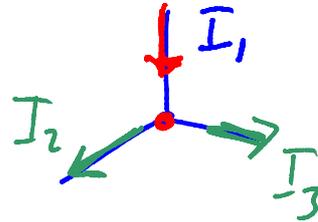
$AB, DC = 0$
 $AD, AC \neq 0$
 BD, BC

$$I(A) \neq I(B)$$

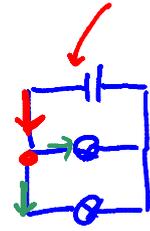
$$I(C) \neq I(D)$$

Kirchhoff'sche Regeln

Knotenregel



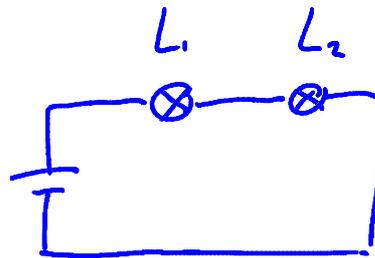
(z.B.



in jedem Knotenpunkt ist die Summe der zufließenden Ströme (I_1) gleich der Summe der abfließenden Ströme ($I_2 + I_3$)

$$I_1 = I_2 + I_3$$

Maschenregel



In jedem geschlossenen Stromkreis ist die Summe der Spannungen gleich Null!