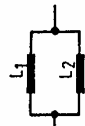

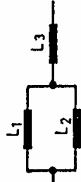



DIE SPULE – RECHENBEISPIELE


1. BERECHE DIE GESAMTINDUKTIVITÄT L

a)  $L_1 = 3 \text{ mH}$
 $L_2 = 6 \text{ mH}$ } $L = \underline{\quad 2 \text{ mH} \quad}$

b)  $L_1 = 3 \text{ mH}$
 $L_2 = 9 \text{ mH}$ } $L = \underline{\quad 12 \text{ mH} \quad}$

c)  $L_1 = L_2 = 2 \text{ mH}$
 $L_3 = 5 \text{ mH}$ } $L = \underline{\quad 6 \text{ mH} \quad}$

d)  $L_1 = L_2 = 2 \text{ mH}$
 $L_3 = L_4 = 1 \text{ mH}$ } $L = \underline{\quad 1,333 \text{ mH} \quad}$

e)  $L_1 = L_2 = 2 \text{ mH}$
 $L_3 = L_4 = 0,5 \text{ mH}$ } $L = \underline{\quad 2,666 \text{ mH} \quad}$

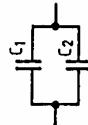
2. BERECHE DEN INDUKTIVEN WIDERSTAND X_L


f	L	X_L
50 Hz	10 mH	3,14 Ω
50 Hz	100 mH	31,4 Ω
1 MHz	10 mH	62,8 k Ω
1 MHz	100 mH	628 k Ω

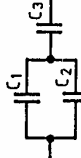
DARC Ausbildung **TECHNIK** Lektion 4 Folie 4

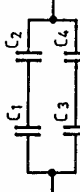
DER KONDENSATOR – RECHENBEISPIELE

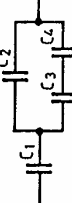
1. BERECHE DIE GESAMTKAPAZITÄT C

a)  $C_1 = 3 \mu\text{F}$
 $C_2 = 6 \mu\text{F}$ } $C = \underline{\quad 9 \mu\text{F} \quad}$

b)  $C_1 = 3 \mu\text{F}$
 $C_2 = 9 \mu\text{F}$ } $C = \underline{\quad 2,25 \mu\text{F} \quad}$

c)  $C_1 = C_2 = 2 \mu\text{F}$
 $C_3 = 5 \mu\text{F}$ } $C = \underline{\quad 2,222 \mu\text{F} \quad}$

d)  $C_1 = C_2 = 2 \mu\text{F}$
 $C_3 = C_4 = 1 \mu\text{F}$ } $C = \underline{\quad 1,5 \mu\text{F} \quad}$

e)  $C_1 = C_2 = 2 \mu\text{F}$
 $C_3 = C_4 = 0,5 \mu\text{F}$ } $C = \underline{\quad 1,059 \mu\text{F} \quad}$

2. BERECHE DEN KAPAZITIVEN WIDERSTAND X_C

f	C	X_C
50 Hz	1 μF	3,18 k Ω
50 Hz	1 nF	3,18 M Ω
1 MHz	1 μF	0,159 Ω
1 MHz	1 nF	159 Ω

DARC Ausbildung **TECHNIK** Lektion 6 Folie 6