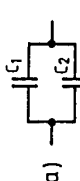
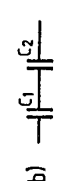
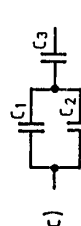


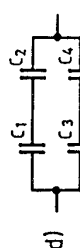
DER KONDENSATOR-RECHENBEISPIELE

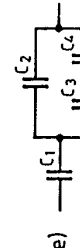
1. BERECHE DIE GESAMTKAPAZITÄT C

a)   $C_1 = 3 \mu\text{F}$   
 $C_2 = 6 \mu\text{F}$  }  $C =$  \_\_\_\_\_

b)   $C_1 = 3 \mu\text{F}$   
 $C_2 = 9 \mu\text{F}$  }  $C =$  \_\_\_\_\_

c)   $C_1 = C_2 = 2 \mu\text{F}$   
 $C_3 = 5 \mu\text{F}$  }  $C =$  \_\_\_\_\_

d)   $C_1 = C_2 = 2 \mu\text{F}$   
 $C_3 = C_4 = 1 \mu\text{F}$  }  $C =$  \_\_\_\_\_

e)   $C_1 = C_2 = 2 \mu\text{F}$   
 $C_3 = C_4 = 0,5 \mu\text{F}$  }  $C =$  \_\_\_\_\_


2. BERECHE DEN KAPAZITIVEN WIDERSTAND  $X_C$

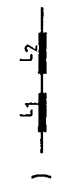
f	C	$X_C$
50 Hz	1 $\mu\text{F}$	
50 Hz	1 nF	
1 MHz	1 $\mu\text{F}$	
1 MHz	1 nF	


DARC Ausbildung **TECHNIK** Lektion 6 Folie 6


DIE SPULE - RECHENBEISPIELE

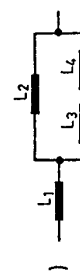
1. BERECHE DIE GESAMTINDUKTIVITÄT L

a)   $L_1 = 3 \text{ mH}$   
 $L_2 = 6 \text{ mH}$  }  $L =$  \_\_\_\_\_

b)   $L_1 = 3 \text{ mH}$   
 $L_2 = 9 \text{ mH}$  }  $L =$  \_\_\_\_\_

c)   $L_1 = L_2 = 2 \text{ mH}$   
 $L_3 = 5 \text{ mH}$  }  $L =$  \_\_\_\_\_

d)   $L_1 = L_2 = 2 \text{ mH}$   
 $L_3 = L_4 = 1 \text{ mH}$  }  $L =$  \_\_\_\_\_

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

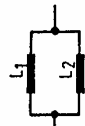
2. BERECHE DEN INDUKTIVEN WIDERSTAND  $X_L$


f	L	$X_L$
50 Hz	10 mH	
50 Hz	100 mH	
1 MHz	10 mH	
1 MHz	100 mH	

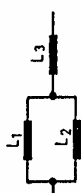
DARC Ausbildung **TECHNIK** Lektion 4 Folie 4


DIE SPULE – RECHENBEISPIELE

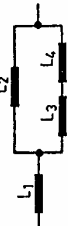
1. BERECHE DIE GESAMTINDUKTIVITÄT L

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

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

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

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

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

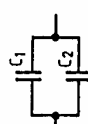
2. BERECHE DEN INDUKTIVEN WIDERSTAND  $X_L$

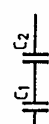
f	L	$X_L$
50 Hz	10 mH	3,14 $\Omega$
50 Hz	100 mH	31,4 $\Omega$
1 MHz	10 mH	62,8 k $\Omega$
1 MHz	100 mH	628 k $\Omega$

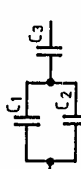
DARC Ausbildung **TECHNIK** Lektion 4 Folie 4

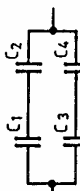
DER KONDENSATOR – RECHENBEISPIELE

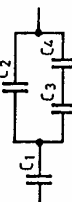
1. BERECHE DIE GESAMTKAPAZITÄT C

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

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

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

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

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

2. BERECHE DEN KAPAZITIVEN WIDERSTAND  $X_C$

f	C	$X_C$
50 Hz	1 $\mu\text{F}$	3,18 k $\Omega$
50 Hz	1 nF	3,18 M $\Omega$
1 MHz	1 $\mu\text{F}$	0,159 $\Omega$
1 MHz	1 nF	159 $\Omega$

DARC Ausbildung **TECHNIK** Lektion 6 Folie 6