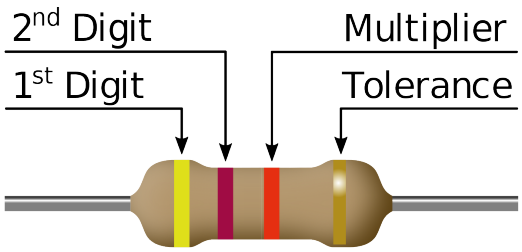
RESISTOR COLOR CODES



COLOR	VALUE	MULTI-PLIER	TOLE-RANCE
BLACK	0	x 1	
BROWN	1	x 10	± 1%
RED	2	x 100	± 2%
ORANGE	3	x 1000	
YELLOW	4	x 10 000	
GREEN	5	x 100 000	
BLUE	6	x 1000 000	
VIOLET	7		
GREY	8		
WHITE	9		
GOLD		x 0.1	± 5%

- Calculate the missing colors and resistors in the following tables..
- In the last column, calculate the current that will flow through the resistor when connected to a 9 volt battery.
- All values should be written to 3 decimal places and with the multiplier symbol that best corresponds to it (M=Mega, k=kilo, m=mili, µ=micro)

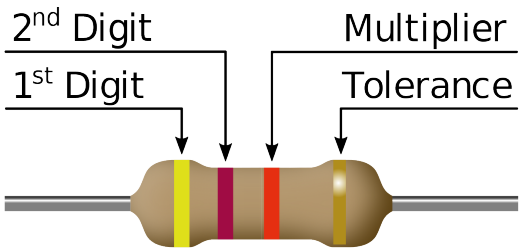
COMMERCIAL SERIES E6: (5%)

VALUE Ω	1st DIGIT	2nd DIGIT	MULTI-PLIER	TOLE-RANCE	I = 9v / R
4.7 MΩ					
	RED	RED	BLACK	GOLD	
15 Ω					
	ORANGE	ORANGE	GOLD	GOLD	
10 kΩ					
	BROWN	GREEN	BROWN	GOLD	
220 Ω					
	YELLOW	VIOLET	BLACK	GOLD	
3.3 kΩ					
	RED	RED	RED	GOLD	
100 Ω					
	BLUE	GREY	BROWN	GOLD	
22 kΩ					
	BROWN	BLACK	YELLOW	GOLD	
1.0 Ω					
	BLUE	GREY	ORANGE	GOLD	
680 kΩ					
	ORANGE	ORANGE	GREEN	GOLD	

COMMERCIAL SERIES E6: (5%)

VALUE Ω	1st DIGIT	2nd DIGIT	MULTI-PLIER	TOLE-RANCE	I = 9v / R
1.5 kΩ					
	YELLOW	VIOLET	RED	GOLD	
2.2 Ω					
	BROWN	BLACK	BLACK	GOLD	
2.2 MΩ					
	BROWN	GREEN	ORANGE	GOLD	
330 kΩ					
	RED	RED	YELLOW	GOLD	
4.7 Ω					
	BLUE	GREY	GREEN	GOLD	
470Ω					
	BROWN	BLACK	RED	GOLD	
47 kΩ					
	BROWN	GREEN	GOLD	GOLD	
33 Ω					
	BROWN	GREEN	GREEN	GOLD	
150 kΩ					
	BLUE	GREY	GOLD	GOLD	
68 Ω					
	ORANGE	ORANGE	BROWN	GOLD	
1 MΩ					
	ORANGE	ORANGE	ORANGE	GOLD	
6.8 kΩ					
	YELLOW	VIOLET	YELLOW	GOLD	

RESISTOR COLOR CODES



COLOR	VALUE	MULTI-PLIER	TOLE-RANCE
BLACK	0	x 1	
BROWN	1	x 10	± 1%
RED	2	x 100	± 2%
ORANGE	3	x 1000	
YELLOW	4	x 10 000	
GREEN	5	x 100 000	
BLUE	6	x 1000 000	
VIOLET	7		
GREY	8		
WHITE	9		
GOLD		x 0.1	± 5%

- Calculate the missing colors and resistors in the following tables..
- In the last column, calculate the current that will flow through the resistor when connected to a 9 volt battery.
- All values should be written to 3 decimal places and with the multiplier symbol that best corres-ponds to it (M=Mega, k=kilo, m=mili, µ=micro)

COMMERCIAL SERIES E6: (5%)

VALUE Ω	1st DIGIT	2nd DIGIT	MULTI-PLIER	TOLE-RANCE	I = 9v / R
4.7 MΩ	YELLOW	VIOLET	GREEN	GOLD	1,91 µA
22 Ω	RED	RED	BLACK	GOLD	409 mA
15 Ω	BROWN	GREEN	BLACK	GOLD	600 mA
3.3 Ω	ORANGE	ORANGE	GOLD	GOLD	2,73 A
10 kΩ	BROWN	BLACK	ORANGE	GOLD	900 µA
150 Ω	BROWN	GREEN	BROWN	GOLD	60,0 mA
220 Ω	RED	RED	BROWN	GOLD	40,9 mA
47 Ω	YELLOW	VIOLET	BLACK	GOLD	192 mA
3.3 kΩ	ORANGE	ORANGE	RED	GOLD	2,73 mA
2.2 kΩ	RED	RED	RED	GOLD	4,09 mA
100 Ω	BROWN	BLACK	BROWN	GOLD	90,0 mA
680 Ω	BLUE	GREY	BROWN	GOLD	13,2 mA
22 kΩ	RED	RED	ORANGE	GOLD	409 µA
100 kΩ	BROWN	BLACK	YELLOW	GOLD	90,0 µA
1.0 Ω	BROWN	BLACK	GOLD	GOLD	9,00 A
68 kΩ	BLUE	GREY	ORANGE	GOLD	132 µA
680 kΩ	BLUE	GREY	YELLOW	GOLD	13,2 µA
3.3 MΩ	ORANGE	ORANGE	GREEN	GOLD	2,73 µA

COMMERCIAL SERIES E6: (5%)

VALUE Ω	1st DIGIT	2nd DIGIT	MULTI-PLIER	TOLE-RANCE	I = 9v / R
1.5 kΩ	BROWN	GREEN	RED	GOLD	6,00 mA
4.7 kΩ	YELLOW	VIOLET	RED	GOLD	1,91 mA
2.2 Ω	RED	RED	GOLD	GOLD	4,09 A
10 Ω	BROWN	BLACK	BLACK	GOLD	900 mA
2.2 MΩ	RED	RED	GREEN	GOLD	4,09 µA
15 kΩ	BROWN	GREEN	ORANGE	GOLD	600 µA
330 kΩ	ORANGE	ORANGE	YELLOW	GOLD	27,3 µA
220 kΩ	RED	RED	YELLOW	GOLD	40,9 µA
4.7 Ω	YELLOW	VIOLET	GOLD	GOLD	1,91 A
6.8 MΩ	BLUE	GREY	GREEN	GOLD	1,32 µA
470Ω	YELLOW	VIOLET	BROWN	GOLD	19,2 mA
1 kΩ	BROWN	BLACK	RED	GOLD	9,00 mA
47 kΩ	YELLOW	VIOLET	ORANGE	GOLD	192 µA
1.5 Ω	BROWN	GREEN	GOLD	GOLD	6,00 A
33 Ω	ORANGE	ORANGE	BLACK	GOLD	273 mA
1.5 MΩ	BROWN	GREEN	GREEN	GOLD	6,00 µA
150 kΩ	BROWN	GREEN	YELLOW	GOLD	60,0 µA
6.8 Ω	BLUE	GREY	GOLD	GOLD	1,32 A
68 Ω	BLUE	GREY	BLACK	GOLD	132 mA
330 Ω	ORANGE	ORANGE	BROWN	GOLD	27,3 mA
1 MΩ	BROWN	BLACK	GREEN	GOLD	9,00 µA
33 kΩ	ORANGE	ORANGE	ORANGE	GOLD	273 µA
6.8 kΩ	BLUE	GREY	RED	GOLD	1,32 mA
470 kΩ	YELLOW	VIOLET	YELLOW	GOLD	19,2 µA