Match the resistance values to the resistors!

(1.)_____ 470Ω (3.)_____ 10KΩ (5.)_____ 270KΩ

(2.)_____ 1KΩ (4.)_____ 100KΩ

A

BROWN
BLACK
YELLOW
GOLD

B

RED
VIOLET
YELLOW
GOLD

C

BROWN
BLACK
ORANGE
GOLD

D

YELLOW
VIOLET
BROWN
GOLD

E

BROWN
BLACK
RED
GOLD

Write the letter "F" if the statement is False and the letter "T" if the statement is True!

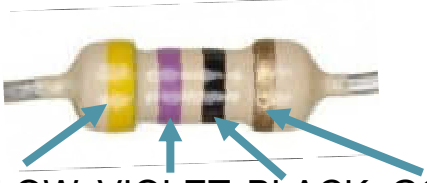
1. _____ Rated resistance values and measured resistance values are always the same for all resistors.
2. _____ When measuring resistance values of thee different 1KΩ resistors, it is possible to get three different measured resistance values.
3. _____ The numerical value of a RED colored band on a resistor is 2.
4. _____ When added to a circuit, resistors *do not* resist or limit the amount of electrical flow.
5. _____ The color bands on fixed resistors only come in five colors: black, brown, red, violet and yellow.
6. _____ A potentiometer's resistance value can change based on the amount of light present.
7. _____ The Greek symbol Omega (Ω) is the symbol for the SI Unit of electrical resistance.
8. _____ The tolerance value of a GOLD colored band on a resistor is ±5%.

Choose the best word from the word bank to complete the following sentences!

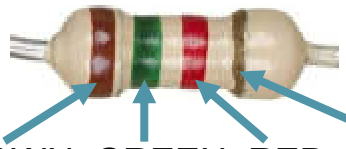
1. The unit for electrical resistance is named after_____ a German physicist and mathematician.
2. Resistors have _____ ratings given as a percentage.
3. _____ is known for inventing the wire precision resistor.
4. When resistors are connected in _____ they make a single path for current to flow.
5. A resistor's_____ limits the flow of electric current through a circuit.
6. Resistors connected in _____ create multiple paths for current to flow.

Draw the circuit diagram symbols for and explain how a fixed resistor, photoresistor, and a potentiometer work.

Determine the resistance value for the following resistors.



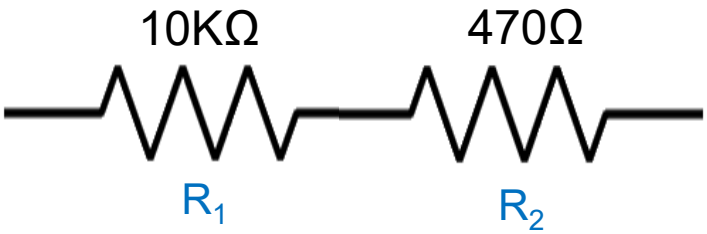
YELLOW, VIOLET, BLACK, GOLD



BROWN, GREEN, RED, GOLD

Calculate the total resistance for Circuit 1 and Circuit 2.

Circuit 1



Circuit 2