

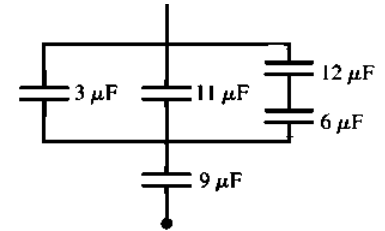
1. Two charges are separated by 5 m. Object A has a charge of $+5\text{ }\mu\text{C}$, while object B has a charge of $-4\text{ }\mu\text{C}$. What is the force on object A?
2. Object A has a charge of $+2.3\text{ }\mu\text{C}$, while object B has a charge of $-3.5\text{ }\mu\text{C}$. while the force on object A equals 24 N, calculate the distance.
3. Object A has a charge of $+4\text{ }\mu\text{C}$, while object B has a charge of $+X\text{ }\mu\text{C}$. while the force on object A equals 24 N ,and the distance 2 m , what is the value of (X).
4. Two charges are separated by 3 cm. Object A has a charge of $+6\text{ }\mu\text{C}$, while object B has a charge of $-3\text{ }\mu\text{C}$. What is the force on object A?
5. What must be the distance between point charge $q_1 = 26\text{ }\mu\text{C}$ and point charge $q_2 = -47\text{ }\mu\text{C}$ for the electrostatic force between them to have a magnitude of 5.7 N?

[illegible]

1. A force of 2 N is acting on the charge $4 \mu\text{C}$ at any point. Calculate the electric field intensity at that point.
2. The electric field intensity which effects $5 \mu\text{C}$ at any point. Calculate the force acting at that point
3. Two similar charges are separated by 10 cm. Object A has a charge of $+5 \mu\text{C}$,
 - a) What is the force on object A?
 - b) What is The electric field intensity?

[illegible]

Find the equivalent capacitance of the five-capacitor network shown in the opposite Figure.

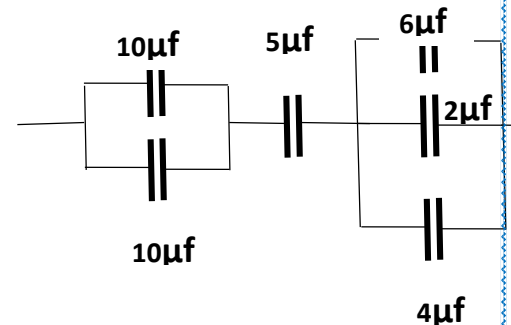


1. An electric circuit has a $100\ \Omega$ which resist 10 A calculate:
 - a) The potential difference
 - b) The time if you knew that the charge equal $6 \times 10^{-5}\text{C}$.
2. An electrical element which has a resistance of $60\ \Omega$ is connected across a 24 V power supply. Calculate the current drawn from the power supply
3. 100W heating element is connected to a 25 V power supply voltage. Calculate a) the resistance of the element when it is hot b) the current drawn from the supply
4. A copper wire 30 m long and $2 \times 10^{-6}\text{ m}^2$ cross sectional area has a potential difference of 3V across. Calculate the current if the copper resistivity is $1.79 \times 10^{-8}\ \Omega\cdot\text{m}$
5. A metallic wire is 1 m long and 1mm^2 in cross-sectional area. It carries a current of intensity 4A when a 2V potential difference is applied between its ends. Calculate the conductivity of the metallic wire
6. Look at the figure and calculate the distance between point charge $q_1 = -30\ \mu\text{C}$ and point charge $q_2 = 40\ \mu\text{C}$ for the electrostatic force between them to have a magnitude of 3 N

Hint: - $K = 9 \times 10^9 \text{ N.m}^2 / \text{c}^2$



- 7.** Look at the figure and calculate The equivalent capacitance



8.