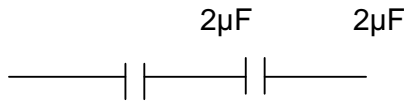
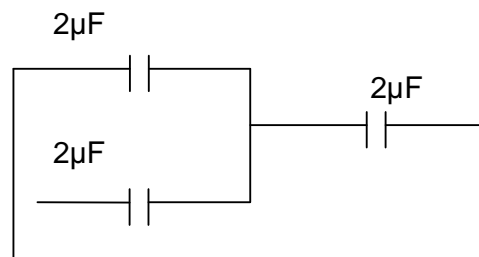


Cálculos de las capacitancias totales en circuitos en serie,
paralelo y mixto



CAPACITANCIA TOTAL

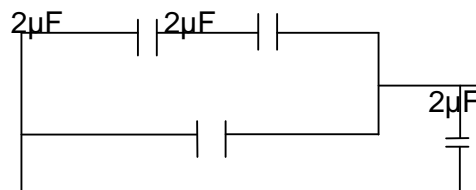
$$C_T = \frac{C_1 * C_2}{C_1 + C_2} = \frac{2\mu F * 2\mu F}{2\mu F + 2\mu F} = \frac{4\mu F}{4\mu F} = 1\mu F$$



CAPACITANCIA TOTAL

$$C_{12} = \frac{C_1 * C_2}{C_1 + C_2} = \frac{2\mu F * 2\mu F}{2\mu F + 2\mu F} = \frac{4\mu F}{4\mu F} = 1\mu F$$

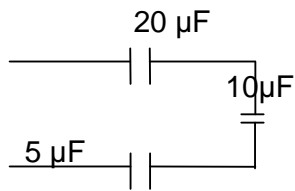
$$C_T = \frac{C_{12} * C_3}{C_{12} + C_3} = \frac{1\mu F * 2\mu F}{1\mu F + 2\mu F} = \frac{2\mu F}{3\mu F} = 0.666\mu F$$



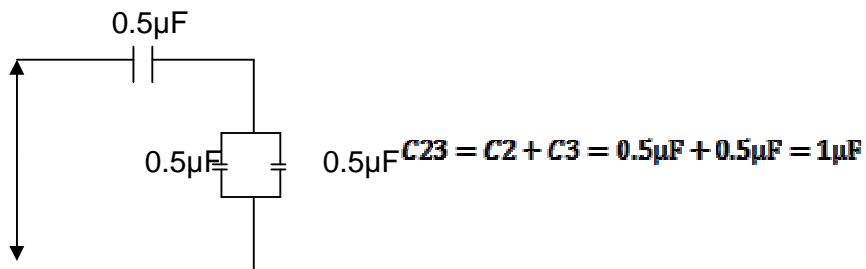
$$C_{12} = \frac{C_1 * C_2}{C_1 + C_2} = \frac{2\mu F * 2\mu F}{2\mu F + 2\mu F} = \frac{4\mu F}{4\mu F} = 1\mu F$$

$$C_{123} = 1\mu F + 2\mu F = 3\mu F$$

$$C_T = \frac{C_{123} * C_4}{C_{123} + C_4} = \frac{3\mu F * 2\mu F}{3\mu F + 2\mu F} = \frac{6\mu F}{5\mu F} = 1.2\mu F$$



$$C_T = \frac{1}{\frac{1}{C_1} + \frac{1}{C_2} + \frac{1}{C_3}} = \frac{1}{\frac{1}{20\mu F} + \frac{1}{10\mu F} + \frac{1}{5\mu F}} = \frac{1}{\frac{1}{50000} + \frac{1}{100000} + \frac{1}{200000}} = \frac{1}{\frac{2}{100000}} = \frac{1}{0.00002} = 2.85\mu F$$



$$C_T = \frac{C_1 * C_{23}}{C_1 + C_{23}} = \frac{0.5\mu F * 1\mu F}{0.5\mu F + 1\mu F} = \frac{0.5\mu F}{1.5\mu F} = 0.75\mu F$$

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