

A 100 V battery is connected across a combination of  $n$  capacitors connected in series. The capacitance of each capacitor is  $5.00 \mu\text{F}$ . If the total stored energy is  $50 \mu\text{J}$ , what is  $n$ ?

$$U = \frac{1}{2} C V^2$$

$$U = \frac{1}{2} \frac{C_1}{n} V^2$$

$$50 \times 10^{-6} = \frac{1}{2} \frac{5 \times 10^{-6}}{n} (100)^2$$

$$n = 500$$

04 Sep	11 Sep	18 Sep	25 Sep	2 Oct	9 Oct	23 Oct	30 Oct	6 Nov	13 Nov	20 Nov	27 Nov	4 Dec	11 Dec	18 Dec
Solutions of the quizzes can be found on the webpage: <a href="http://faculty.kfupm.edu.sa/phys/aljalal/phys102.htm">http://faculty.kfupm.edu.sa/phys/aljalal/phys102.htm</a>														
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