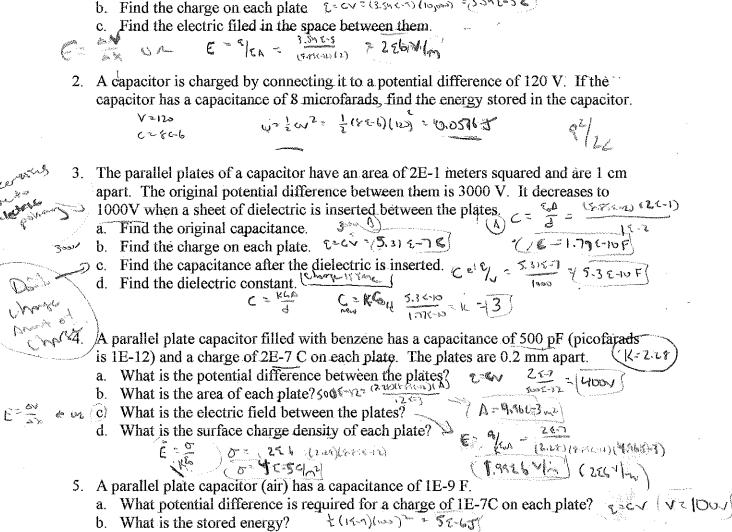
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	Drift - Worksheet 5 - Capacitance
	Chair a vait than
1.	The plates of a parallel-plate capacitor are 5mm apart and 2 meters squared in area. The plates are separated only by air. A potential difference of 10,000 V is applied
	across the capacitor. $C = \frac{6A}{2} = \frac{15.65 \text{ GiV}(2)}{52.3} = 3.54 \text{ K} - 9 \text{ F}$
	b. Find the charge on each plate $\xi = CV = (3.5\% C - 3) (10,000) = (3.5\% \xi - 3.5\% \xi $



6. An 8E-6 F capacitor has a plate separation of 4mm and is charged to a potential difference of 500 V. Calculate the energy density in the region between the plates (in J/m³).

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c. If the plates are 1mm apart, what is the area of the plates? $C = \frac{\sqrt{\Lambda}}{2} + \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{\sqrt{$