

### Problem 6

Edges of a dodecahedron are made of wire of negligible electrical resistance; each wire includes a capacitor of capacitance  $C$ , see figure. Let us mark a vertex  $A$  and its three neighbours  $B$ ,  $D$  and  $E$ . The wire segments  $AB$  and  $AD$  are removed. What is the capacitance between the vertices  $B$  and  $E$ ?

