

 $\mathrm{MA}\ 538$ 

Fall 2021

## HOMEWORK 2

4. Let  $(X, \mathcal{T})$  be a topological space and let B be a subset of X. Show

$$\overline{B} = \mathbb{C}[int(\mathbb{C}B)].$$

5. Let  $(X, \mathcal{T})$  be a topological space and let A be a subset of X. Show

$$\partial A = \overline{A} \setminus int(A).$$

6. Let  $(X, \mathcal{T})$  be a topological space and let A be a subset of X. Show that int(A) is open.

DUE: September 9, 2021