

Classwork #1

MATRICOLA ..... Lastname ..... Name .....

1) (1 point) Complete the following table of truth.

$\mathcal{F}$	$\mathcal{G}$	$\mathcal{F} \vee \mathcal{G}$	$\mathcal{F} \wedge \mathcal{G}$	$\neg(\mathcal{F} \wedge \mathcal{G})$	$(\mathcal{F} \vee \mathcal{G}) \wedge \neg(\mathcal{F} \wedge \mathcal{G})$
T	T	T	T		
T	F	T	F		
F	T	T	F		
F	F	F	F		

2) (1 point) Given the set  $A = \{1, 2\}$ , find its power set  $\mathcal{P}(A)$ . Which is the cardinality of  $\mathcal{P}(A)$ ? **Motivate your answers.**

3) (1 point) Consider the set  $E = \left\{ \frac{1}{n^2} \mid n \in \mathbb{N} \wedge n > 0 \right\}$ . Compute, provided that they exist, max and min. Compute infimum and supremum. **Motivate your answers.**