# Mini report \#1 (Advanced Automation) 2021.11.4 

Student \#:
Name:

## [NOTICE]

- write by hand
- due date: 2021/11/10 17:00; place of submission: [Ilias] or [room 405 @ Dept. Mech. Bldg. 1]
- don't answer in approximated values (write $\sqrt{2}$ instead of 1.4142 , for example)

Let $M$ be a matrix given as:

$$
M=\left[\begin{array}{ll}
j & 0 \\
j & 1
\end{array}\right]
$$

Answer the followings:
(1) $\bar{M}$
(2) $M^{*}$
(3) $M^{*} M$
(4) $\lambda_{i}\left(M^{*} M\right)$
(5) $\sigma_{i}(M)$
(6) $\bar{\sigma}(M)$

