## MEMORIAL UNIVERSITY OF NEWFOUNDLAND DEPARTMENT OF MATHEMATICS AND STATISTICS

Section 1.11	Math 2000 Worksheet	Fall 2018

## For practice only. Not to be submitted.

- 1. Given z = 3 4i and w = -1 + 7i, evaluate each of the following.
  - (a) z + w
  - (b) z w
  - (c)  $z \cdot w$
  - (d)  $\frac{w}{z}$

  - (e)  $w^2$
  - (f) |z|
- 2. Determine the complex number z with polar representation  $(4, \frac{5\pi}{6})$ .
- 3. (a) Find the polar representation of  $z = \sqrt{3} + i$ .
  - (b) Use the polar representation to evaluate  $z^4$ .